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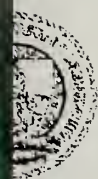
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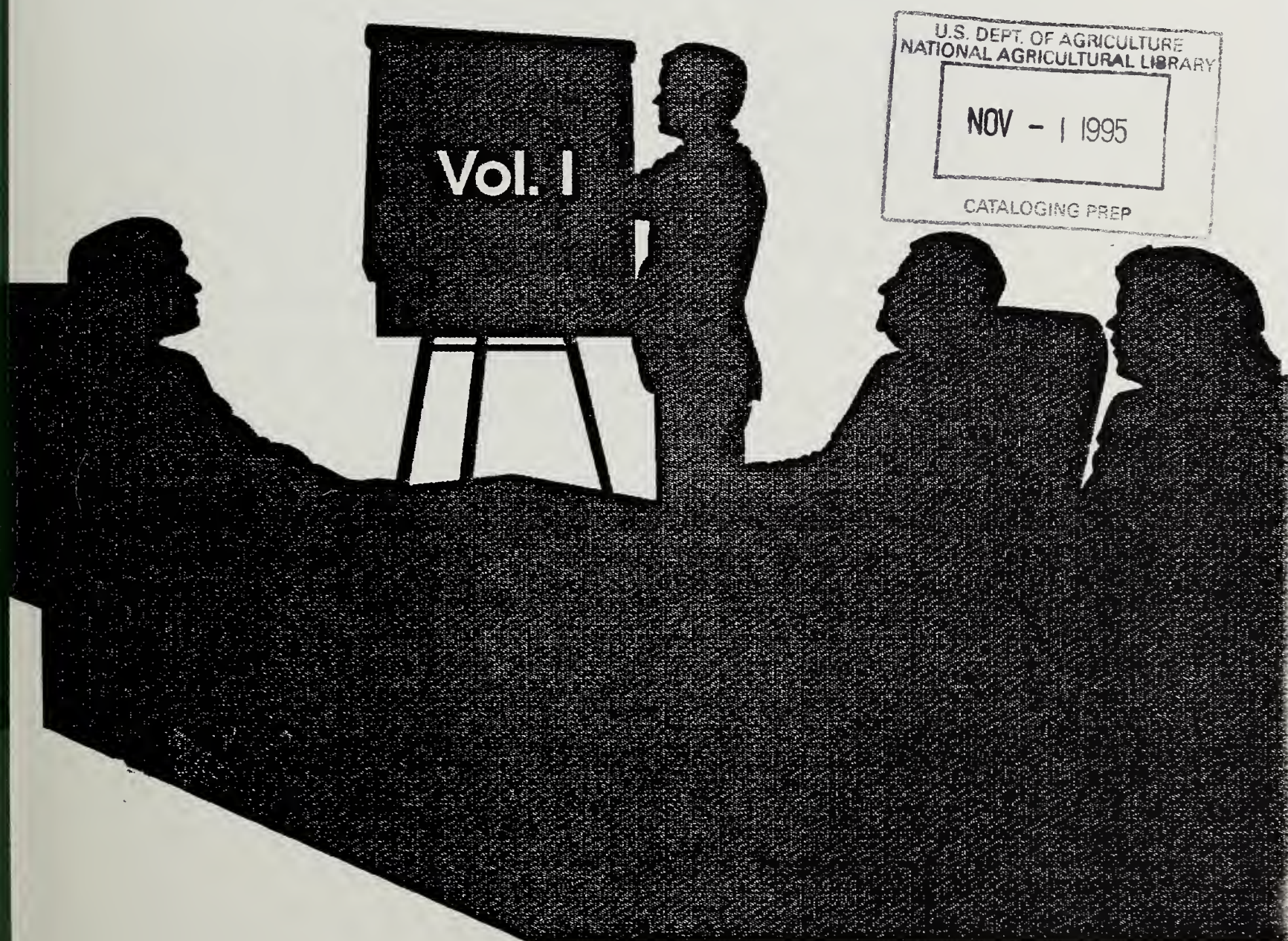
Policy Evaluation  
and Planning  
Staff

HACCP-7

April 1994

# HACCP Workshops Report Summary

Includes information from  
Workshop Steering Committees  
and  
Plant Adaption Activities



In January 1990, the Food Safety and Inspection Service (FSIS) of the U.S. Department of Agriculture initiated efforts to determine how to implement the Hazard Analysis and Critical Control Point (HACCP) system in regulated meat and poultry plants. HACCP is a process control system that identifies "critical" points in the food production process that should be controlled to prevent food safety hazards (i.e., microbiological, chemical, and physical hazards) from occurring.

Agency activities included consultations and public hearings to explain HACCP and the Agency's efforts, workshops to develop model HACCP plans, in-plant testing to trial the specific plant HACCP plans at nine volunteer plants, and an assessment of the overall experience of the Agency.

A series of reports will be written on the various phases and activities undertaken by the Agency and participants during the study. This is one of the reports. For further information concerning FSIS HACCP activities contact:

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# **HACCP WORKSHOPS REPORT**

## ***SUMMARY***

**Includes information from  
WORKSHOP STEERING COMMITTEES  
and  
PLANT ADAPTION ACTIVITIES**

*Vol. 1*

*United States Department of Agriculture  
Food Safety and Inspection Service  
Policy Analysis Unit  
Washington, D.C. 20250  
February 1994*



## SUMMARY

In January 1990, the Food Safety and Inspection Service (FSIS) began a study to determine the process for Hazard Analysis Critical Control Points (HACCP)\* implementation in meat and poultry operations. As part of the study, five FSIS/industry workshops were held to develop generic HACCP models. Workshops were held to develop HACCP models for Refrigerated Foods, Cooked Sausage, Poultry Slaughter, Ground Beef, and Swine Slaughter. An industry steering committee was formed after each workshop to fine-tune the generic model and represent industry if any changes needed to be made in it following testing in pilot plants.

This report describes the workshops, their steering committees, and the process of adapting the generic models from three of the workshops to nine pilot plants.

According to the participants, useful generic HACCP models were produced at the FSIS/industry workshops. The workshop format for developing HACCP models worked well. Eighty-four percent of the participants who filled out questionnaires said the workshop accomplished what they expected. They also stated that the workshop format was a sound approach for producing a generic HACCP model. When asked to suggest alternative methods for developing generic models, more than half the participants volunteered that the workshop method was the best method for developing generic models.

The steering committees played an important role in the workshop process by fine-tuning the HACCP models so they were consistent within themselves and with other generic models. The committees handled issues which were not able to be completed at the workshops.

The generic models developed at the workshops were found to be applicable in the volunteer pilot plants. The HACCP Special Team requested that only one change in a generic model be made by a steering committee based on the plant-specific plans developed in the plants. More information or training about how to design a HACCP plan or a more detailed generic model would be necessary before some plants could develop a HACCP plan on their own.

\*Hazard Analysis Critical Control Points (HACCP) is a process control system that identifies "critical" points in the food production process that should be controlled to prevent food safety hazards from occurring.



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# I. INTRODUCTION

## Purpose

To examine the role of joint FSIS/industry workshops in the development of generic HACCP\* models for meat and poultry products.

## Background

In January 1990, the Food Safety and Inspection Service (FSIS) began a study to determine the process for Hazard Analysis Critical Control Points (HACCP) implementation in meat and poultry operations. As part of the study, five FSIS/industry workshops were held to develop generic HACCP models. Workshops were held to develop HACCP models for Refrigerated Foods, Cooked Sausage, Poultry Slaughter, Ground Beef, and Swine Slaughter. Participants in these workshops were representatives from industry, trade associations and government. Workshops were open to the public for observation, on a reserved space basis. Time was allotted for observer comments, but observers were not allowed to participate in the model development process.

The objectives of the workshops were to:

1. Assure participants understand the seven HACCP principles and their application.
2. Assist the industry participants in developing a generic HACCP model for their process/product.
3. Use a workshop design which will help capture input from all participants in the industry HACCP model.
4. Provide HACCP information needed for the participants to tailor the generic HACCP model into a specific HACCP plan for their products/processes at their establishments.

These objectives were to be met by involving all participants in the HACCP model design by structuring the workshops in short group participation segments for both large and small group activities.

The workshops were facilitated by a Special Team of headquarters and field employees which orchestrated all workshop sessions, prepared all needed materials, and led the sessions. Special Team members were FSIS personnel selected for leadership, communication skills and a strong background in FSIS operations and regulations.

Five Subject Matter Experts (SME) were chosen competitively from FSIS field staff for each workshop. Their role was to provide technical advice on each specific workshop product/process. Pre-workshops were held prior to each workshop with the SMEs to work out potential problem areas and plan workshop specifics.

\*Hazard Analysis Critical Control Points (HACCP) is a process control system that identifies "critical" points in the food production process that should be controlled to prevent food safety hazards from occurring.

A workshop steering committee of industry participants was established after each workshop. This committee was responsible for refining the generic HACCP model for consistency and for making any changes to the model following testing in volunteer plants.

After the workshops were held, three of the workshop-generated HACCP models, Refrigerated Foods, Cooked Sausage, and Poultry Slaughter, were each tested in three volunteer plants for a total of nine plants. The volunteer plants developed plant-specific plans based on the generic HACCP models.

### Methodology

The Policy Analysis Unit (PAU), FSIS, as part of the HACCP study, examined the workshops. A questionnaire was developed for workshop participants and observers, for steering committee members, and for the Special Team and pilot plant employees involved in adaption of the generic model to plant-specific HACCP plans. Participants and observers were asked questions related to the design and operation of the workshop, the workshop materials, the process employed in developing a generic HACCP model, and their views concerning the workshop approach. Steering committee members were asked questions concerning the roles and tasks of the steering committee, their time and effort, and the cost to their company of their participation. The Special Team and plant employees were asked questions assessing their time and effort spent developing a plant-specific plan based on the generic model developed at the workshop.

Questionnaires completed by participants and observers were analyzed and reports were prepared after each workshop. The same questionnaire was used for all five workshops with minor changes to address particular issues relevant to a specific workshop.

Individual reports were written for each steering committee and an overall report based on these was prepared. In addition, individual reports were written about the development of a plant-specific plan in each pilot plant and an overall report based on these was prepared.

### Report Plan

The first section of this summary report presents individual synopsis of each of the five workshops including their steering committee actions and plant-specific adaption experiences, if applicable. The final section presents some concluding remarks about the workshops, steering committees and plant-specific adaption experiences.



## II. INDIVIDUAL HACCP WORKSHOPS

### Refrigerated Foods Workshop

The Refrigerated Foods Workshop, the first to develop a generic HACCP model, was held in Baltimore, Maryland, on February 26-28, 1991. This workshop focused on "keep refrigerated" products containing uncured meat or poultry that are cooked, assembled, then packaged. A total of 40 participants and 42 observers were in attendance.

The steering committee met in Washington, DC shortly after the workshop to "wordsmith" the model and to address issues raised at the workshop. In addition, the committee discussed the applicability of HACCP principle #1 concerning risk assessment and risk categories.

The generic model developed at the workshop was tested in three pilot plants. In general, the generic model was successfully adapted to plant-specific plans in the pilot plants. However, all three plants included a critical control point for "receiving" in their plant-specific plans which was not included in the generic model. The steering committee was contacted to change the generic model.

### *Findings*

Ninety-three percent of participant respondents agreed or strongly agreed that the workshop resulted in a useful generic HACCP model.

Ninety-two percent of participant respondents indicated that the workshop met their expectations. Group discussion, debate with peers, and the open forum between government and industry were cited as the most beneficial aspects of the workshop.

Participant respondents said the written materials were most useful for "developing assigned [critical control points] CCP monitoring plan" and "developing verification procedures." They felt the materials to "assess ingredient hazards" were least useful.

Participant and observer respondents had different views on the benefit of including observers. Seventy-six percent of observers strongly agreed that "the presence of observers was beneficial to the workshop." Only 53 percent of the participants did.

Steering committee members stated that the committee played a necessary role fine-tuning the generic model so it was a consistent, unified document. They felt as an industry group, they had developed a generic model more suitable to industry than if FSIS had done it.

The pilot plants were the first to attempt to develop a plant-specific plan from a workshop-developed generic model. Special Team members became more skilled at helping pilot plants develop plant-specific plans.

## Cooked Sausage Workshop

The Cooked Sausage Workshop was held in Fort Worth, Texas, on May 21-23, 1991. This workshop focused on cooked sausage (frankfurter). A total of 35 participants and 25 observers were in attendance.

As a result of the evaluation report of the Refrigerated Foods workshop, the first morning session was changed. An additional question was included in the questionnaire asking for their comments on that session. The largest number of comments suggested shortening or eliminating the morning agenda. A slightly smaller group of respondents suggested leaving the session as it was.

The steering committee was charged with fine-tuning the generic model. No unresolved issues were raised at the workshop. However, the committee wanted to revise the model as members felt it contained too many CCPs. The FSIS Special Team told the committee they could not revise the model but they could submit an alternative model, which they did.

The generic model was tested in three pilot plants. Plant-specific HACCP plans based on the generic model were successfully developed during the pilot tests.

### *Findings*

Sixty-two percent of the participant respondents agreed that the workshop resulted in a useful generic HACCP model developed by industry participants.

Seventy-six percent of participant respondents said the workshop accomplished what they expected. Participant respondents said interaction with a good cross-section of peers and FSIS was the most beneficial to them.

Participant respondents said the written materials were most useful for "assessing finish product hazards," "assessing ingredient hazards," and "developing assigned CCP monitoring plan."

Some participant respondents were concerned that discussions were impeded by what they felt were tangential issues. However, observer respondents said the workshop was very well organized.

Steering committee members said steering committees performed an essential function by making the wording of the workshop-developed generic models uniform to avoid misinterpretations and ensuring consistency. These members expressed frustration because as workshop representatives, they thought they should be able to make substantive changes in the generic model.

Although the generic model fit well in these pilots, some of these plants took a long time to complete satisfactory plant-specific models. In fact, one plant was still making changes to the model after the implementation phase had begun.



## Poultry Slaughter Workshop

The Poultry Slaughter Workshop was held in Atlanta, Georgia, on August 27-29, 1991. This was the first workshop for a slaughter process. This workshop focussed on ready to cook whole young chicken. A total of 43 participants and 54 observers were in attendance.

In addition to fine-tuning the generic model developed at the workshop, the steering committee was asked to address "notes from industry" attached to the generic model concerning chemical residues and chlorination.

The generic model was tested in three pilot plants. The plant-specific models were successfully developed using the generic model.

### *Findings*

Fifty-six percent of the participant respondents agreed that the workshop resulted in a useful generic HACCP model developed by industry participants.

Seventy-two percent said that the workshop had accomplished what they expected. The most beneficial aspect of the workshop to participants was "the chance to discuss and generate various options, meeting and talking with fellow members of the workshop" and "getting a feel for the general opinion of industry towards HACCP."

Participant respondents said the written materials were most useful in "determining placement of CCP's on the flow diagram."

Some participant respondents were disturbed that USDA participants were allowed to vote at the workshop. They said this detracted from the final package being an industry model.

Most members of this workshop steering committee said it was important for industry to participate on the steering committee in order for industry to claim ownership of the model.

One poultry slaughter plant was the first volunteer plant to have developed a plant-specific plan prior to meeting with the Special Team, one plant had had no prior experience with HACCP, and one plant was initially uncomfortable with the requirements of participating as a volunteer plant.

## Ground Beef Workshop

The Ground Beef Workshop was held in Phoenix, Arizona on December 3-5, 1991. This workshop focused on raw ground beef. A total of 31 participants and 12 observers were in attendance.

The steering committee was charged with fine-tuning the generic model developed at the workshop. No unresolved issues were raised at the workshop.

The model developed at this workshop was not tested in pilot plants following the workshop because of time constraints for the study.

## *Findings*

Eighty-nine percent of the participant respondents agreed that the workshop resulted in a useful generic HACCP model developed by industry participants.

Ninety-three percent said the workshop accomplished what they expected. They commented that they had a much better understanding of what HACCP is, how to develop a specific plan, and how to implement it in the field.

Participant respondents indicated that the most useful written materials were "assessing finished product hazards."

Members of this steering committee stated they had benefitted from the work of the previous committees.



## Swine Slaughter Workshop

The Swine Slaughter Workshop was held in Minneapolis, Minnesota, on March 31-April 2, 1992. This workshop focused on young market hogs. A total of 30 participants and six observers were in attendance.

The National Advisory Committee on Microbiological Criteria for Foods expanded its original report upon which the HACCP study were based by incorporating in Principle #1 a decision tree intended to facilitate the identification of critical control points (CCPs). This workshop was the first to use the decision tree method to identify CCPs. A question was added to the questionnaire asking participants about it.

In addition to fine-tuning the generic model developed at the workshop, the steering committee was asked to address as addenda to the model issues of pesticides and antibiotic residues and also organic acid sanitizing systems for microbial reduction.

The model developed at this workshop was not tested in pilot plants following the workshop because of time constraints for the study.

### *Findings*

When respondents were asked to comment on the decision tree method used to assess hazards and identify preventive measures and CCPs, they said the method was useful, effective and would aid the process of preparing a HACCP plan.

Eighty percent of the participant respondents agreed that the workshop resulted in a useful generic HACCP model developed by industry participants.

Ninety-six percent said the workshop had accomplished what they expected. They said the workshop gave them a basic understanding of the principles and concepts necessary to formulate HACCP plans and set up programs in their own plants. "It made clear a viable method to be used in a slaughter situation to identify and control hazards."

The participant respondents said the small group breakout sessions were the most beneficial part of the workshop.

Participant respondents indicated that the most useful written materials were "assessing finished product hazards."

Steering committee members said their role was to fine-tune the generic model for consistency and eliminate any wording indicating a specific method of control that must be used at a CCP.



### III. CONCLUDING REMARKS

It was important to examine all three components of the workshop process, the workshops themselves, their steering committees, and the adaption process, to understand whether the workshops were successful in producing generic HACCP models which could be used by industry.

According to workshop participants who responded to the questionnaire, useful generic HACCP models were produced at the FSIS/industry workshops. They felt the workshop format worked well in developing HACCP models. Eighty-four percent of the participant respondents said the workshop accomplished what they expected. When asked to suggest alternative methods for developing generic HACCP models, more than half the participant respondents volunteered that the workshop method was best for developing generic models.

Steering committee members said steering committees were essential to the success of the workshop process. They said steering committees played an important role in fine-tuning the models developed at the workshops for consistency both within themselves and also with other generic models. In addition, the committees were able to handle issues which were not addressed completely at the workshops.

The generic models developed at the workshops were found to be applicable in volunteer pilot plants. The HACCP Special Team requested only one change in a generic model to be made by a steering committee based on plant-specific plans developed in volunteer plants.

However, some plants needed a lot of help preparing their plant-specific plan. Their ability to prepare a plant-specific plan was enhanced by prior knowledge of Total Quality Control (TQC), Partial Quality Control (PQC), or HACCP type programs. More information or training about how to design a HACCP plan or a more detailed generic model would be necessary before some plants could develop a HACCP plan on their own.





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April 1994

# HACCP Workshops Report

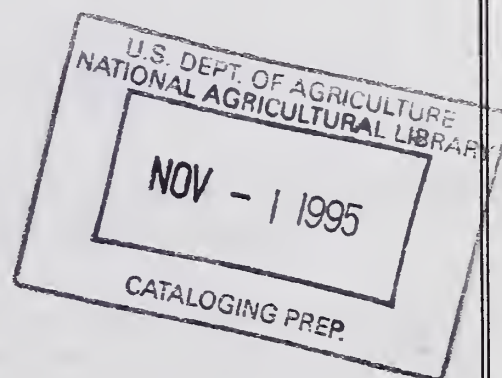
## Overview & Summary of the five HACCP Workshop Reports





# **HACCP Workshops Report**

## **Overview & Summary of the five HACCP Workshop Reports**



**Vol. II**





## SUMMARY

In January 1990, the Food Safety and Inspection Service (FSIS) began a study to determine the process for Hazard Analysis Critical Control Points (HACCP)\* implementation in meat and poultry operations. As part of the study, five FSIS/industry workshops were held to develop generic HACCP models. Workshops were held to develop HACCP models for Refrigerated Foods, Cooked Sausage, Poultry Slaughter, Ground Beef, and Swine Slaughter.

Participants and observers at the workshops were asked to complete a questionnaire at the completion of the workshop. An examination of their responses showed that the workshop format for developing HACCP models worked well. Eighty-four percent of the participants who completed the questionnaire said the workshop accomplished what they expected. Both participants and observers said the workshop format was a sound approach for producing a generic HACCP model and said that useful generic models were produced at the workshops.

Workshop participants said they had a better understanding of HACCP and FSIS's position on HACCP from attending the workshop.

Workshop participants said the workshops were successful in generating a generic model for their process/product.

Workshop participants said developing the generic model was beneficial to them in learning how to write a HACCP plan.

Workshop participants said that holding a workshop was the best method to use in developing a generic HACCP plan.

Participants at the Refrigerated Foods, Ground Beef and Swine Slaughter workshops were more likely to rate the workshops higher than participants at the Cooked Sausage and Poultry Slaughter.

There were no differences in responses between participants at processing and slaughter workshops. There were no differences in responses between workshop participants and workshop observers except that observers were more likely than participants to feel the observer role in the workshops was beneficial.

\*Hazard Analysis Critical Control Points (HACCP) is a process control system that identifies "critical" points in the food production process that should be controlled to prevent food safety hazards from occurring.



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# I. INTRODUCTION

## Purpose

To examine the role of joint FSIS/industry workshops in the development of generic HACCP\* models for meat and poultry products.

## Background

In January 1990, the Food Safety and Inspection Service (FSIS) began a study to determine the process for Hazard Analysis Critical Control Points (HACCP) implementation in meat and poultry operations. As part of the study, five FSIS/industry workshops were held to develop generic HACCP models. Workshops were held to develop HACCP models for Refrigerated Foods, Cooked Sausage, Poultry Slaughter, Ground Beef, and Swine Slaughter. Participants in these workshops were representatives from industry, trade associations and government. Workshops were open to the public for observation, on a reserved space basis. Time was allotted for observer comments, but observers were not allowed to participate in the model development process.

The objectives of the workshops were to:

1. Assure participants understand the seven HACCP principles and their application.
2. Assist the industry participants in developing a generic HACCP model for their process/product.
3. Use a workshop design which will help capture input from all participants in the industry HACCP model.
4. Provide HACCP information needed for the participants to tailor the generic HACCP model into a specific HACCP plan for their products/processes at their establishments.

These objectives were to be met by involving all participants in the HACCP model design by structuring the workshop in short group participation segments in both large and small group activities.

The workshops were facilitated by a Special Team of headquarters and field employees which orchestrated all workshop sessions, prepared all needed materials, and led the sessions. Special Team members were FSIS personnel selected for leadership, communication skills and a strong background in FSIS operations and regulations.

Five Subject Matter Experts (SME) were chosen competitively from FSIS field staff for each workshop. Their role was to provide technical advice on each specific workshop product/process. Pre-workshops were held prior to each workshop with the SMEs to work out potential problem areas and plan the workshop specifics.

## Methodology

At the end of each workshop, participants and observers were asked to complete a questionnaire addressing workshop design, materials, development of a generic HACCP model, the workshop approach and any suggested improvements.

\*Hazard Analysis Critical Control Points (HACCP) is a process control system that identifies "critical" points in the food production process that should be controlled to prevent food safety hazards from occurring.

These questionnaire responses were analyzed and a report written following each workshop. These were shared with the workshop staff and alterations were made to the workshops.

The overall response rate was 88 percent for participants varying from 75 percent for the Refrigerated Foods workshop to 100 percent for the Swine Slaughter workshop. Overall response rate for observers was 51 percent varying from 33 percent for the Swine Slaughter workshop to 72 percent for the Cooked Sausage and Poultry Slaughter workshops.

Because of low numbers of observers at some workshops and low response rate of observers, findings will be reported for participant responses unless otherwise noted. Significant difference in responses between participants and observers will be described where they occur.

The majority of both participants and observers said they were affiliated with the meat and poultry industry. The next largest numbers were trade association members for participants and government employees for the observer category.

### Report Plan

This report will summarize the questionnaire results from five HACCP workshops held to develop generic models for Hazard Analysis and Critical Control Points for five products/processes. Specific results from each of the five workshops will be found in the Appendices. (See Appendix A-E.)

The first section uses participant responses to describe how well the workshops met the objectives set by the workshop organizers. The second section provides a summary of all responses to the workshop questionnaires. The last section addresses differences in responses between participants at different workshops and a summary of findings.



## II. OBJECTIVES OF HACCP WORKSHOP

### Introduction

This section will use participant responses to describe how well the workshops met the four objectives set by workshop organizers.

### Objective One: HACCP Principles

The first objective of the workshops was to *"assure participants understand the seven HACCP principles and their application."* The first day's sessions introduced HACCP principles and the remaining workshop sessions were spent using these principles to develop a generic HACCP model. Despite dissatisfaction with the length of the introductory materials, participants said they had a better understanding of HACCP after the workshops concluded. Participants said that participating at the workshop had given them "insight into the purpose of HACCP." They had "learned what HACCP is and what it may lead to and understood HACCP and its development and implementation." "The steps involved in the development of the HACCP program and the materials made available for further training when I return to my facility" were most beneficial to them.

### Objective Two: Model Development

The second objective of the workshops was to *"assist the industry participants in developing a generic HACCP model for their process/product."* Each workshop resulted in a generic HACCP model being developed. Participants differed in their judgement of how generic the model was. Some thought it too generic and would have liked specific examples. Others thought it was good as developed.

Participants disagreed on the extent to which they felt the developed model was an FSIS plan or an industry plan. Some participants said FSIS had thought out the generic plan ahead of time and the workshop was "rubber stamping" it. Others liked going through the process without any pre-conditions. Some would have liked having a sample plan to follow from a previous workshop, others did not.

### Objective Three: Workshop Design

The third objective of the workshops was to *"use a workshop design which will help capture input from all participants in the industry HACCP model."*

The workshop format included a mix of large group and small group sessions. Participants at each workshop were divided into five small working groups. A subject matter specialist was assigned to each small group. These groups worked on individual critical control points (CCPs) and reported back to the whole group. At the whole group sessions, a computer run projection screen made the deliberations of the group visible to all. After each session, copies of the session's work were made and distributed to all participants.

Eighty-five percent of the participants who responded rated the workshop as adequate or more than adequate in completing the workshop objectives. Many participants stated their appreciation for the use of small breakout groups. They allowed for "an easier exchange of ideas."

They were also enthusiastic about the use of audiovisuals, the computer-run overhead projector, and the fact that a photocopy machine was easily available. Observers stated that they would have like to have had copies of the participant manuals. Both groups stated that frequently receiving hard copy updates of workshop products was beneficial.

Workshop organizers were responsive to participant evaluation and made changes to the workshop agenda in response to their comments.

#### Objective Four: Tailor Generic Model to Plant-Specific Plan

The fourth objective was to *"provide HACCP information needed for the participants to tailor the generic HACCP model into a specific HACCP plan for their products/processes at their establishments."*

All the pilot plants were able to develop plant-specific plans based on the generic HACCP models developed at the workshops. Some plants were more easily able to develop a plant-specific plan. This depended upon how much prior HACCP, Total Quality Control (TQC), or Partial Quality Control (PQC) experience the plant quality control staff had. Some plants would have needed more training to have been able to develop a plant-specific plan on their own.

Some workshop participants commented that they had learned enough information to return to their company and develop a HACCP plan for their plant.



### III. SUMMARY FINDINGS OF THE FIVE HACCP WORKSHOPS

#### Introduction

At the end of each HACCP workshop, participants and observers were asked to answer a series of questions about HACCP model development, workshop design and operation, and workshop materials. For each of these topics, a summary question was designed. Results of the summary questions for each topic are presented below.

#### HACCP Model Development

Respondents were asked how successful the workshop was in identifying critical control points (CCPs), determining critical limits for each CCP, developing monitoring plan activity for identified CCPs, developing corrective action approaches, developing record-keeping systems, and developing verification procedures. The following question was asked as a summary to these specific ones.

*Overall, how successful was the workshop in developing a generic HACCP model?*

	Very successful	Successful	Somewhat successful	Not successful /don't know
Participants	14%	55%	26%	5%
Observers	8%	46%	37%	9%

Both participant and observer respondents stated the workshop was successful in developing a generic HACCP model. However, participants tended to answer more affirmatively.

#### Workshop Design and Operation

Respondents were asked to rate the workshop in terms of development of a generic product/process description, development of process flow diagram, organization of the three days, use of small "break-out groups", reporting of small "break-out" group activities to entire group, opportunity for input from observers, opportunity for input from participants, effectiveness of facilitators in helping achieve workshop objectives, effectiveness of subject matter experts in helping achieve workshop objectives, effectiveness of group leaders in helping achieve workshop objectives, and effectiveness of group reporters in helping achieve workshop objectives. The following question was asked as a summary to these specific ones.

*Rate the workshop in terms of completion of workshop objectives.*

	More than adequate	Adequate	Marginally adequate	Inadequate /don't know
Participants	16%	70%	11%	3%
Observers	14%	50%	23%	13%

Both participant and observer respondents rated the workshop as adequate or more than adequate in terms of completing the workshop objectives. Again, participants were somewhat more likely to rate the design and operation of the workshops more positively.

### Workshop Materials

Respondents were asked how useful the written materials were for assessing finished product hazards, assessing ingredient hazards, determining placement of CCPs on flow diagram, determining critical limits for each CCP, developing assigned CCP monitoring plan, developing corrective action approaches, developing record-keeping systems, and developing verification procedures. The following question was asked as a summary to these specific ones.

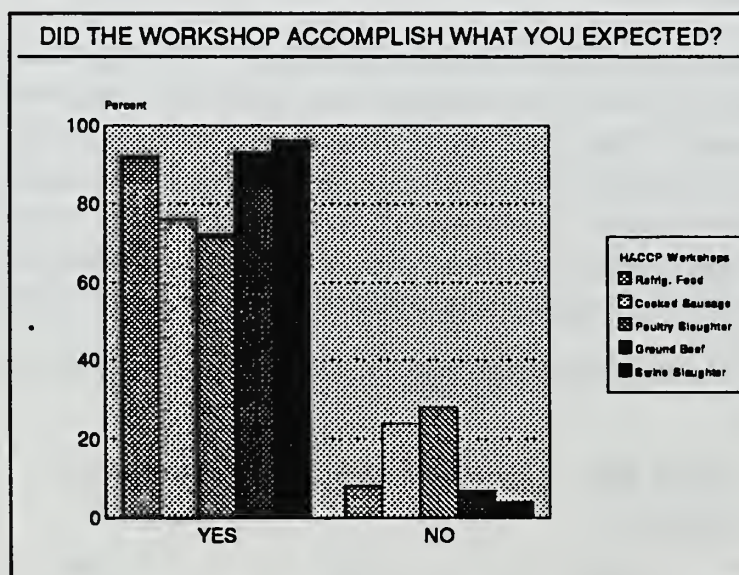
***Overall, how useful were the written materials for developing a generic HACCP model?***

	Very Useful	Useful	Somewhat Useful	Not at all Useful
Participants	16%	61%	19%	4%
Observers	Observers were asked not to complete this section since they did not have the complete set of workshop materials.			

Seventy-seven percent of the participant respondents indicated that the written materials were useful or very useful.

### Workshop Expectations

Respondents were asked *if the workshops had accomplished what they expected*. Overall, 84 percent of the participant respondents thought the workshop accomplished what they had expected.





Respondents were given the opportunity to provide comments. One hundred three participant respondents wrote comments which are summarized below.

Sixty-nine respondents said the workshop accomplished what they had expected. Of these, forty-one said an acceptable generic model for the product/process in their workshop was developed that could be adapted by the industry. Seventeen felt they had a better understanding of HACCP and FSIS' position about HACCP from attending the workshop. Seven remarked that there were excellent information exchanges, good discussion, consensus and good final decisions at the workshop. Four others made general laudatory remarks.

Eight answered both yes and no. They said the definition of "generic" was unclear as was the reason for developing a generic plan.

Twenty-six said the workshop did not accomplish what they expected. Of these, nineteen said the model developed was too generic, the CCPs were watered down, or had too many CCPs. Seven responses expressed general dissatisfaction with the workshop. They said they expected to gain more from the workshop.

Respondents were asked if *the individual sessions accomplished what they expected*. Only one person said that none of the sessions accomplished what he expected. The most frequent answer for the Refrigerated Foods, Cooked Sausage, Ground Beef and Swine Slaughter workshops was "Yes for all." For Poultry Slaughter, the most common response was "Yes for some."

Many of the respondents assumed that by "individual sessions" the questionnaire was referring to the small group meetings only, rather than all the sessions. Respondents were given the opportunity to provide comments. Seventy-three participant respondents wrote comments which are summarized below.

Thirty-one respondents said it was advantageous to work in smaller groups which facilitated more in-depth discussion with full participation of all participants.

Fourteen commented on the allocation of time at the workshops. Some said the amount of time allotted to small group meetings was too short, some felt too much time was spent on some issues, and some felt that some sessions were a waste of time.

Seven said the workshop format made good use of different ways of developing a HACCP plan, for example, small groups, large group, facilitator, group leaders, recorders, etc.

Seven said they learned a lot about HACCP and writing a HACCP plan, seven said the process was well organized and took into account different size firms, and seven made other comments.

Respondents were asked to suggest *methods other than workshops [that] could be used to develop HACCP models?* One hundred twenty participant respondents wrote comments which are summarized below.

Sixty-nine respondents said the workshop format was the best one to use to develop HACCP generic models. "This is the best method with industry being able to actively participate in the development of future FSIS regulations." "This is probably the best method for all to air their options." "The open forum was useful and educational for many of the participants." "The workshop was the most efficient method for reaching agreement among the various parties." "Cooperation of industry and USDA is the preferable format."

The question posed three alternative suggestions to the workshop for HACCP model development. From these, 21 respondents said that alternative C: Submission to FSIS of independently-generated models was best. Seven said that alternative A: FSIS-generated model published in the *Federal Register* was best. Four said alternative B: Development of a model by selected academicians was best. Two suggested a combination of two of the options.

Seventeen made other comments including these suggestions:

- Delphi technique to solicit beginnings of a generic model with finalization at actual meeting.
- Input from trade associations.
- Models generated by industry members who have been applying HACCP for at least a year.
- Submission of independently-generated models as resource material for a panel of selected academicians and qualified FSIS employees to generate a model plant which would be published in the *Federal Register* for comments.
- FSIS/academician model submitted as example for workshop.
- Run a pilot in one or two plants and circulate the proposed developed model to the rest of the industry for comments.
- Small group (less than 20 people) to review HACCP programs independently generated that have already been implemented successfully.
- Have a steering committee develop a model then present it at a workshop for completion.

Respondents were asked *what was most beneficial to you about the workshop?* One hundred forty-six participant respondents wrote comments which are summarized below.

Sixty-eight respondents said "The open forum between government and industry [was most beneficial] because it allowed everyone to add their comments and suggestions and allowed for sharing of many different points of view."

Thirty-eight said training in HACCP and working on the model were most beneficial.

Twenty-eight said that the small groups were the best part of the workshop.



Seven cited other factors including consensus, politics, and everything, and five cited the computer system, overheads, etc. were most beneficial.

Respondents were asked *what was least beneficial to you about the workshop?* One hundred five participant respondents made comments which are summarized below.

Twenty-six respondents felt the opening session and review of HACCP theory, and/or risk assessment sessions took too long.

Twenty-four felt too much time was wasted. Of these, thirteen commented that too much time was spent arguing over trivia. Eleven felt the length of the workshop could have been shortened.

Twenty-two said the workshop facilities, the workshop facilitators, or workshop procedures, for example, the observers and voting, was least beneficial to them.

Fifteen commented that everything was beneficial.

Six felt the role of the Subject Matter Experts was unclear and five were discontented with some part of the HACCP model development process.

Seven made other comments.

Respondents from three workshops were asked to *evaluate the first morning agenda*. When respondents at the Refrigerated Foods workshop said the first morning session was too long, the workshop organizers made alterations in the session. A question was added to the questionnaire for respondents at the Cooked Sausage, Poultry Slaughter, and Ground Beef Workshops asking them specifically to evaluate the first morning agenda. Seventy-three participant respondents made comments which are summarized below.

Forty respondents suggested shortening, modifying or eliminating the first morning session. "Too much time was spent on introductions and mechanics and the HACCP overview should be shortened."

Twenty-three said the first morning agenda was fine as is and there was no need to change it.

Five suggested sending an information packet to participants prior to the workshop and asking them to familiarize themselves with the materials before attending the workshop.

Five would have liked more of a review of HACCP during the first session.

The Swine Slaughter workshop was the only workshop held after the National Academy of Sciences Committee on Microbiological Criteria for Food (NASCMF) changed HACCP Principle #1. Respondents were asked comment on Principle #1 and the use of a *decision tree* to assess hazards and identify

preventive measures and CCPs. Twenty-eight participant respondents made comments which are summarized below.

Twenty-six respondents said the decision tree was a very good method to identify and assess hazards. It was simple but effective in determining critical control points.

Two said the method was adequate and acceptable.

At the end of the questionnaire, respondents were given the opportunity to provide *additional comments* about the workshop. One hundred twenty-four participant respondents made comments which are summarized below.

Thirty-nine respondents made comments or suggestions about how future workshops could be run. These suggestions ran the gamut from room size to color-coded name tags, to including "float time" Friday mornings to use if necessary.

Thirty-three said overall the workshops were excellent. The presentations, visual aids, and USDA planning were excellent. "The workshop was exceptional and productive."

Fifteen voiced some confusion about the role of USDA, the role of industry, and the role of the HACCP models developed at the workshops.

Twelve felt the first part of the workshop could have been condensed to save time, that the workshop started off too slowly.

Eleven made comments about HACCP and how it related to TQC or other current industry or FSIS programs.

Ten expressed mixed feelings about the availability of output from previous workshops. While some felt previously generated generic models were very useful to their workshop, others disagreed and said previously generated generic models were unrelated to their product.

Four made suggestions for follow-up to the workshop, one felt the workshop was somewhat confusing at times and one said there was excessive FSIS involvement.



## IV. DIFFERENCE BETWEEN WORKSHOPS

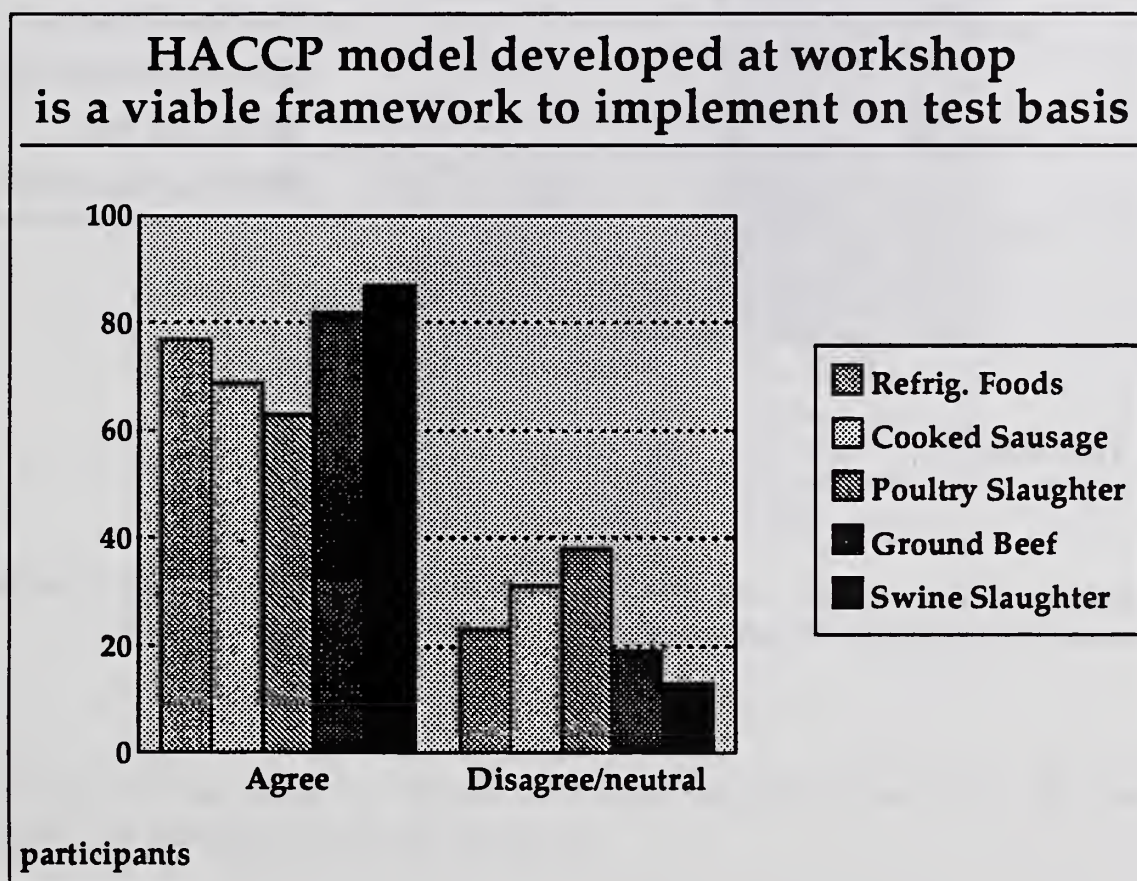
### Introduction

The previous section provided summary information about all participants in all workshops. This section will examine the data from the individual workshops to see if there were any differences in how participants answered the questionnaire based on the workshops they attended. Observer differences are not addressed. There were few differences between participants and observer responses. The largest difference was their response as to whether observers were beneficial to the workshop. Observers were more likely to agree that observers were beneficial to the workshop.

In addition to being asked the series of questions on HACCP model development, workshop design and operation, and workshop materials, participants were asked to indicate their degree of agreement with four statements concerning the workshops.

### HACCP Model as a Viable Framework

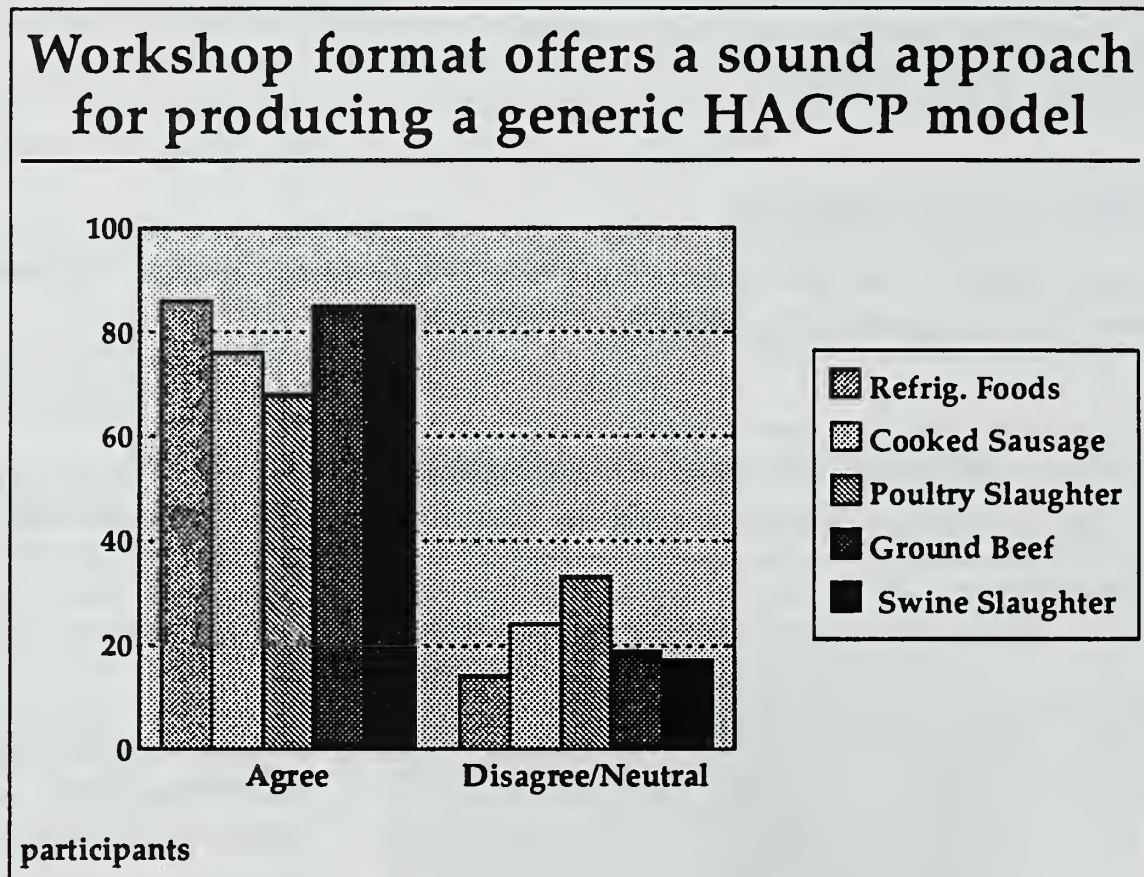
The first statement asked if respondents agreed that *"the HACCP model developed at the workshop is a viable framework for the industry to implement on a test basis."*



Although a large percentage of workshop participants agree with this statement, there was some variation among the workshops. Participants at the Poultry Slaughter workshop were least likely to agree that the HACCP model developed was a viable framework to implement on a test basis. The Swine Slaughter participants were most likely to agree with the statement.

#### Statement Two: Workshop Format as a Sound Approach

The second statement asked if respondents agreed that *"the workshop format offered a sound approach for producing a generic HACCP model for other meat and poultry products."*

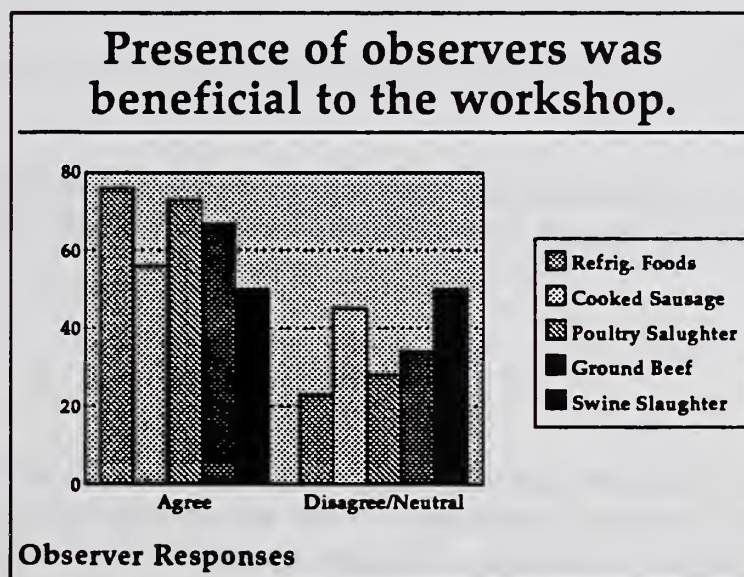
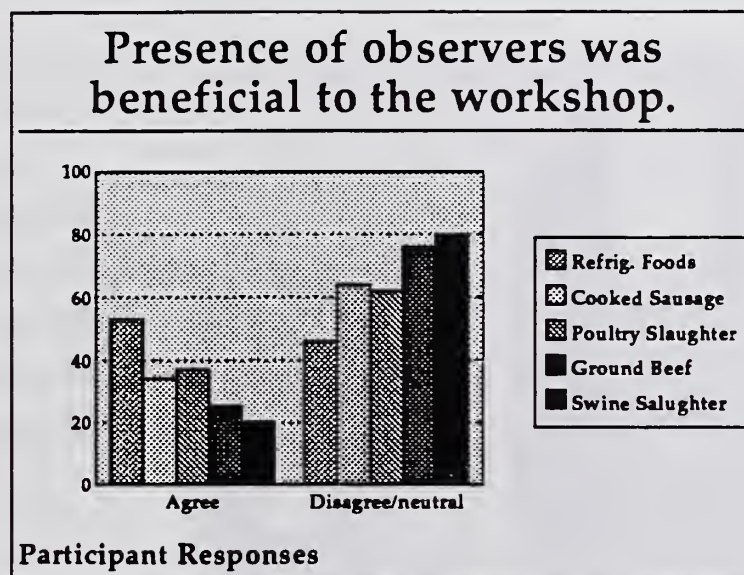


When the answers to this question were examined by workshop, a strong pattern of participant support appeared across all workshops. There was very little variation across workshops.



## Presence of Observers

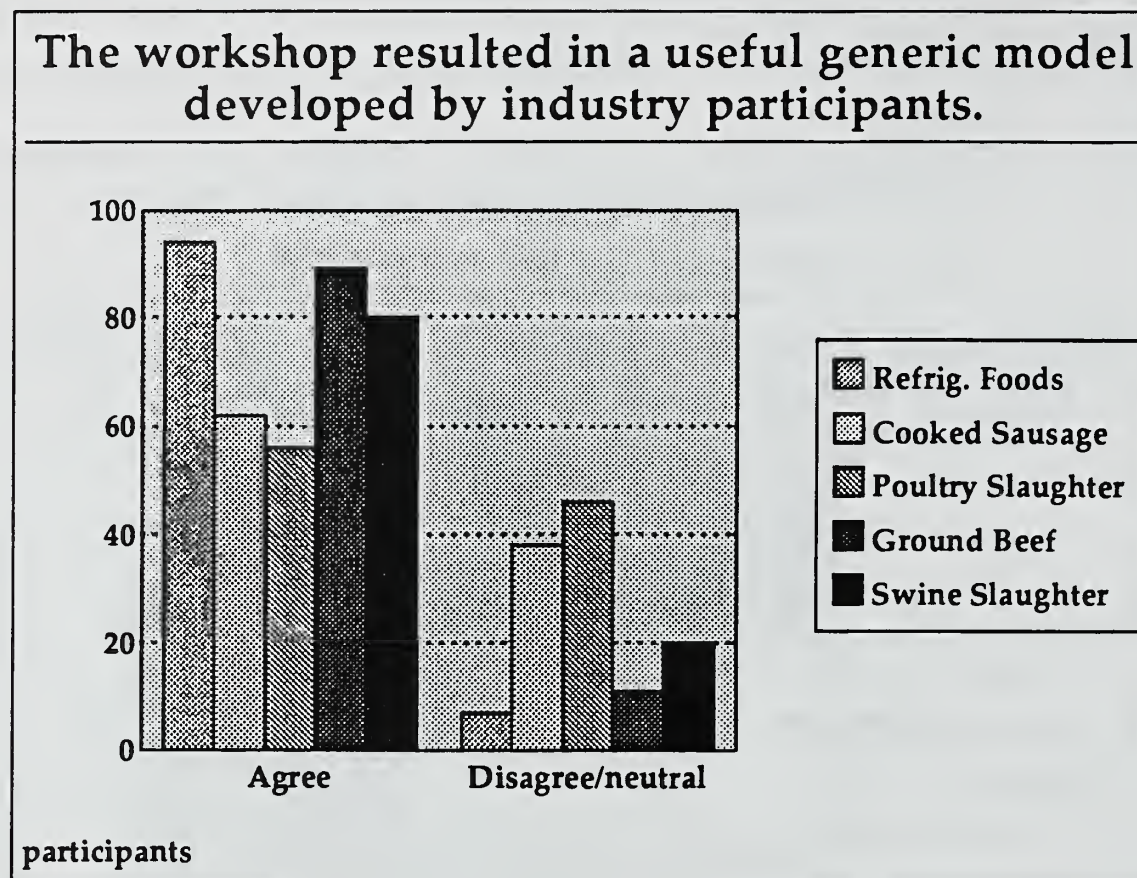
The third question asked if respondents agreed that *"the presence of observers was beneficial to their workshop."* Results from both participants and observers are reported here because of response differences. Observers were much more likely to agree that their presence was beneficial to the workshop. This difference makes intuitive sense especially in light of comments from some observers who would have liked to have had a larger role in the workshops.



Note that for the observer graph, the Ground Beef workshop bar represents only six observers and the Swine Slaughter bar represents only two observers.

### Workshop Resulted in Useful Generic Model

The fourth statement asked if respondents agree that *"the workshop resulted in a useful generic HACCP model developed by industry participants."*



The majority of respondents agree that their workshops resulted in a useful generic model. Participants at the Refrigerated Foods and Ground Beef workshops were most likely to respond positively.

### Summary Findings

There did not appear to be differences in the way processing workshop respondents rated the workshops as compared to slaughter workshop respondents. From the previous graphs, it can be seen that Cooked Sausage and Poultry Slaughter workshop participants appeared to be the most critical of the workshop process. In like manner, Refrigerated Foods, Ground Beef and Swine Slaughter workshop participants were most favorable to the workshops. Overall, all workshop participants were generally favorable to the workshop process.

According to the responses of workshop respondents, the objectives stated by workshop organizers were met.

1. Workshop participants said in their ratings and in their comments that they had a better understanding of HACCP and FSIS's position on HACCP after attending the workshop.



2. Workshop participants said the workshops were successful in generating a generic model for their process/product.
3. Workshop participants said the workshop format, especially the small working groups, facilitated more in-depth discussion with full participation of all.
4. Workshop participants said developing the generic model was beneficial to them in learning how to write a HACCP plan.

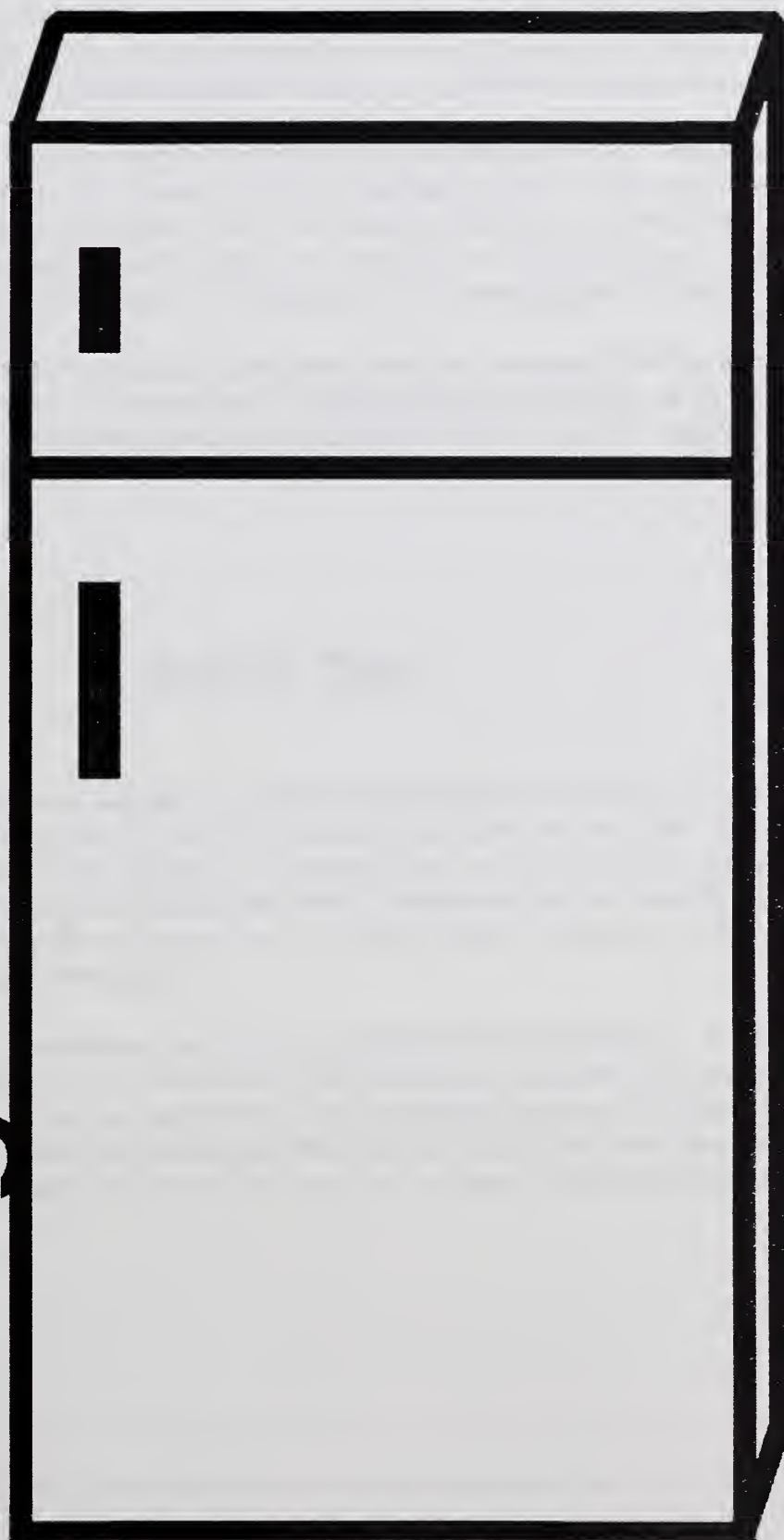
Workshop participants reiterated that holding a joint FSIS/industry workshop was the best method to use in developing a generic HACCP plan.



# Summary of the Evaluation Results of the Workshop for HACCP Model Development

Baltimore, Maryland, February 26 - 28, 1991

**Refrigerated Foods**



**Refrigerated Foods**





## INTRODUCTION

This report presents the evaluation results from the Food Safety Inspection Service (FSIS) of the United States Department of Agriculture (USDA) workshop to develop a generic model for a hazard analysis and critical point (HACCP) plan for refrigerated foods. Representatives from industry, trade associations and government met in Baltimore, Maryland, February 26 – 28, 1991, for this workshop which focussed on "keep refrigerated" products containing uncured meat or poultry that are cooked, assembled, then packaged. The workshop was open to the public for observation, on a reserved space basis.

Participants and Observers were asked to complete a questionnaire which asked them questions related to the design and operation of the workshop, the workshop materials, the process employed in developing a generic HACCP model, and their views concerning the workshop approach and any suggested improvements. Of the 40 Participants and 42 Observers in attendance, 30 Participants (75%) and 16 Observers (38%) responded to the questionnaire.

This evaluation activity is one in a series of on-going evaluation tasks that are a part of the HACCP Implementation Study. The results of this evaluation should serve to help plan subsequent workshops and to provide background information to aid in future planning decisions related to HACCP.

## REPORT PLAN

This report is organized into two sections. Section I presents the results and summary of Participants' responses and Section II presents those for the Observers. Results of the **multiple-choice questions** are presented in a format based on that of the original questionnaire. The responses are reported by number and percent of response for each category. Percentages reported are based on the number of responses to each question and do not always total 100 percent due to arithmetic rounding.

Results of the **open-ended questions** are also summarized in each Section. A content analysis was performed for all hand-written comments. Respondents' remarks are paraphrased and grouped by question. Some respondents made multiple comments while others made none, thus the number of comments per question does not equal the number of respondents. The number of respondents who concurred with each comment is listed parenthetically.



## **SECTION I— PARTICIPANTS**

### **SUMMARY OF PARTICIPANTS' RESPONSES TO EVALUATION QUESTIONNAIRE**





## SUMMARY OF PARTICIPANTS' RESPONSES

### RESPONDENT CHARACTERISTICS

1. Which grouping below best characterizes your current affiliation?

Meat & Poultry Industry: 24/80%	Consultant to Meat & Poultry Industry: 1/3%
Trade Association: 4/13%	Salad Manufacturing: 1/3%

2. If you marked "Meat & Poultry Industry" in Question 1, please indicate all groupings below which best characterize your industry type and the total production volume of your establishment(s). [Low Volume Establishment = 1 - 59,999 lbs. produced/Quarter; Medium Volume Establishment = 60,000 - 1,000,000 lbs. produced/Quarter; High Volume Establishment = more than 1,000,001 lbs. produced/Quarter]

Meat & Poultry Industry	Low Volume Establishment(s):	1/4%
	Medium Volume Establishment(s):	7/29%
	High Volume Establishment(s):	10/42%
	Volume Unspecified:	2/8%

Poultry Industry	Low Volume Establishment(s):	1/4%
	Medium Volume Establishment(s):	0/0%
	High Volume Establishment(s):	3/13%

3. Days attended (mark all that apply):      1 Day: 1/3%      2 Days: 1/3%      3 Days: 28/93%

4. Please check one:      Observer: 0      Participant: 30

### HACCP MODEL DEVELOPMENT

	<u>Very Successful</u>	<u>Successful</u>	<u>Somewhat Successful</u>	<u>Not Successful</u>	<u>Very Unsuccessful</u>	<u>Don't Know</u>
5. Overall, how successful was the workshop in:						
a. Identifying Critical Control Points (CCPs)?	2/7%	22/73%	6/20%	0/0%	0/0%	0/0%
b. Determining critical limits for each CCP?	3/10%	17/57%	10/33%	0/0%	0/0%	0/0%
c. Developing monitoring plan activity for identified CCPs?	4/13%	22/73%	4/13%	0/0%	0/0%	0/0%
d. Developing corrective action approaches?	2/7%	23/79%	4/14%	0/0%	0/0%	0/0%
e. Developing record-keeping systems?	2/7%	23/79%	3/10%	0/0%	1/3%	0/0%
f. Developing verification procedures?	4/14%	19/68%	4/14%	0/0%	1/4%	0/0%
g. Developing a generic HACCP model?	4/14%	17/61%	6/21%	0/0%	0/0%	1/4%

**NOTE:** Results are presented as number of responses/% of responses for each category.

# DESIGN AND OPERATION OF WORKSHOP

	<u>More than Adequate</u>	<u>Adequate</u>	<u>Marginally Adequate</u>	<u>Inadequate</u>	<u>Very Inadequate</u>	<u>Don't Know</u>
6. Please rate the workshop in terms of:						
a. Development of a generic product/process description	5/17%	22/76%	2/7%	0/0%	0/0%	0/0%
b. Development of process flow diagram	4/13%	23/77%	3/10%	0/0%	0/0%	0/0%
c. Organization of the three days	8/27%	21/70%	1/3%	0/0%	0/0%	0/0%
d. Use of small "break-out" groups	13/45%	15/52%	1/3%	0/0%	0/0%	0/0%
e. Reporting of small "break-out" group activities to entire group	9/30%	20/67%	1/3%	0/0%	0/0%	0/0%
f. Opportunity for input from Observers	6/21%	11/38%	5/17%	5/17%	1/3%	1/3%
g. Opportunity for input from Participants	17/57%	13/43%	0/0%	0/0%	0/0%	0/0%
h. Effectiveness of facilitators in helping achieve workshop objectives	6/20%	22/73%	2/7%	0/0%	0/0%	0/0%
i. Effectiveness of subject matter experts in helping achieve workshop objectives	5/17%	19/63%	5/17%	1/3%	0/0%	0/0%
j. Effectiveness of group leaders in helping achieve workshop objectives	6/20%	24/80%	0/0%	0/0%	0/0%	0/0%
k. Effectiveness of group reporters in helping achieve workshop objectives	4/14%	24/86%	0/0%	0/0%	0/0%	0/0%
l. Completion of workshop objectives.	4/14%	24/83%	0/0%	0/0%	0/0%	1/3%

	<u>Strongly Agree</u>	<u>Agree</u>	<u>Neutral</u>	<u>Disagree</u>	<u>Strongly Disagree</u>	<u>Don't Know</u>
7. Please indicate your degree of agreement with each of the following statements.						
a. The HACCP model developed by the workshop participants is a viable framework for the refrigerated food industry to implement on a test basis.	2/7%	21/70%	5/17%	1/3%	0/0%	1/3%
b. The workshop format offers a sound approach for producing a generic HACCP model for other meat and poultry products.	4/14%	21/72%	2/7%	2/7%	0/0%	0/0%
c. The presence of Observers was beneficial to the workshop.	3/10%	13/43%	12/40%	1/3%	1/3%	0/0%
d. The workshop resulted in a useful generic HACCP model developed by industry participants.	5/17%	23/77%	2/7%	0/0%	0/0%	0/0%



**WORKSHOP MATERIALS** (Observers: Please skip Question 8 and continue with Question 9.)

	<u>Very Useful</u>	<u>Useful</u>	<u>Somewhat Useful</u>	<u>Not Useful</u>	<u>Not At All Useful</u>
8. Overall, how useful were the written materials for:					
a. Assessing finished product hazards?	2/7%	16/55%	9/31%	2/7%	0/0%
b. Assessing ingredient hazards?	1/4%	9/32%	8/29%	8/29%	2/7%
c. Determining placement of CCPs on flow diagram?	3/11%	16/59%	8/30%	0/0%	0/0%
d. Determining critical limits for each CCP?	1/3%	16/55%	11/38%	1/3%	0/0%
e. Developing assigned CCP monitoring plan?	1/3%	20/69%	8/28%	0/0%	0/0%
f. Developing corrective action approaches?	3/10%	18/62%	7/24%	1/3%	0/0%
g. Developing record-keeping systems?	2/7%	17/59%	9/31%	1/3%	0/0%
h. Developing verification procedures?	1/4%	18/64%	7/25%	2/7%	0/0%
i. Developing a generic HACCP model?	1/3%	18/62%	9/31%	1/3%	0/0%

**WORKSHOP EXPECTATIONS**

9. Did the workshop accomplish what you expected? Yes: 23/92% No: 2/8%  
Please explain.

(21 comments)

- (6) Yes. An acceptable generic model for cooked/assembled chilled foods was developed. The model should be helpful in proceeding forward with the study.
- (5) Yes. In fact exceeded my expectations. Soliciting industry input is a positive step in this process. I feel we had an impressive group of the best industry experts who "hammered out" a fairly universally usable, generic model HACCP plan. Good group input. Interaction with others (Participants & Observers) was excellent.
- (5) Both Yes and No. As Participants, we seemed to have some trouble agreeing on the definition of the term *generic* and the generic program developed was somewhat more generic than expected. Need several examples to address concerns which are applicable to all variations of product categories. It might have been of benefit to have had some way of recording more specific issues which were discussed. Perhaps it may have been better to develop 2 models: 1) a generic model as we have done, plus 2) a specific model to be used as an example.
- (3) Both Yes and No. The reason for developing a generic plan was unclear. There seemed to be two main objectives—that of having industry Participants give their stamp of approval on a plan and that of creating a plan that can serve as a basis for implementation in individual plants. These two objectives were in conflict at times because we were reluctant to commit to specificity in the model because of an underlying belief that this model will be used by FSIS as the basis for a regulation.
- (2) Yes. We currently don't have a HACCP Program so it was very informative on how to develop a program. Gave me an opportunity to better understand HACCP.

10. Did the individual sessions accomplish what you expected? Please explain.	Yes for All: 16/59%	Yes for Some: 11/41%	No for All: 0/0%
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(17 comments)

- (7) Yes. It was advantageous to work in smaller groups which facilitated a more in-depth discussion with full participation of all Participants. This was a valuable time for the shy people to express their views and concerns. Sensitivity to these opinions is very important in developing a meaningful model. I was able to contribute more to these sessions and to grasp one idea before going on to another because in each session the program was further developed until it was completed.
- (2) Yes. Excellent discussion medium, good interaction and good plan. Our break out facilitator did an excellent job in keeping the group on track. All sessions were conducted with objectivity.
- (2) Yes for Some. I wish that more time/sessions would have been allocated for small group sessions. There should be more time allotted for discussion and debate. USDA must realize that our views of HACCP implementation will (and should) evolve.
- (2) Yes for Some. Specific information was discussed in the individual sessions that was not conveyed to the final program. I had hoped more specific statements would have been developed, including examples.
- (2) Yes for Some. Perhaps revamp placement of individual Participants into small groups. Have more integrated personalities and positions. Need to include producers of referenced product in each break-out group.
- (2) Yes for Some. Too many agendas were being considered as people applied specifics to other areas of future concern. Some of our sessions got hung up on "hair-splitting."

#### COMMENTS

11. Methods other than a workshop format could have been employed to develop a generic HACCP model. Examples of options include an FSIS request for (a) comments on an FSIS-generated model published in the *Federal Register*; (b) development of a model by selected academicians; or (c) submission to FSIS of independently-generated models. Please indicate your preference for one of the above-listed options, or describe any others not mentioned that you would like to be considered by FSIS in the future.

(20 comments)

- (9) The workshop format was very good. This was the most efficient and politically suitable. To improve it, perhaps some preliminary work could have been done. I liked what "we" did!
- (3) Prefer c as these would reflect actions by the industry who must apply the HACCP System. Suggest generated models by industry members who have been applying this for at least 1 year. This may provide input that was not generated in the workshop.
- (2) The workshop and c could be combined, for example, independently-generated models could have been submitted for evaluation at the workshop.
- (1) It was preferable to develop a HACCP program from scratch because the process illustrated some of the shortcomings of the process. The experience of this workshop along with the experiences of future workshops should be useful in fine-tuning the HACCP process.
- (1) A and b should both be pursued prior to any implementation.



- (1) A or b are not workable at all and c might work, but many companies would probably never get around to responding. Perhaps input by trade associations is another viable alternative.
- (1) Use b: development of a model by selected academicians.
- (1) Maybe using the Delphi technique to solicit beginnings of a generic model with finalization at actual meeting.
- (1) Perhaps use submission of independently-generated models as resource material for a panel of selected academicians and qualified FSIS employees to generate a model plan which would be published in the *Federal Register* for comments.

12. What was *most* beneficial to you about the workshop?

(26 comments)

- (16) Group discussion and debate with peers. The open forum between government and industry because it allowed everyone to add their comments and suggestions and allowed for sharing of many different points of view.
- (2) Consensus. The group think process showed once again that "two heads are better than one." The group developed a system that was better than the optional methods listed in Question 11.
- (2) Training in HACCP and an explanation of the steps of the generic model, steering committee and testing plants.
- (2) A detailed explanation of USDA's current thoughts of HACCP, and a good opportunity to assist in the development of the USDA's HACCP plan. I perceived a "refreshing openness" exhibited by USDA. You should be commended for this approach.
- (1) Recognizing that the audience has been involved with HACCP in a practical sense and that we may be further along in the HACCP process than we thought.
- (1) Open discussions in the small group.
- (1) The use of the overhead projections was great.
- (1) I found the entire three-day workshop to be most beneficial.

13. What was *least* beneficial to you about the workshop?

(22 comments)

- (3) Hazard risk assessment: the detailed discussion of Principle 1 took too much time to defend the existing system rather than explain the usefulness of the assigned risk numbers.
- (3) The observer comments.
- (3) Nothing had no value.
- (2) Some people and groups tended to have some very strong positions that were not necessarily the wish of all concerned, but tended to end up as "approved actions." Some parties had an agenda independent of cooked and assembled chilled foods.



- (2) Some points were discussed too long and seemed to get off-track. Many concepts were reviewed several times. While I think participation in activities such as this is valuable, I would rarely have 3 days to devote to them.
  - (2) First a.m. session. The introductions, even though they may have been necessary.
  - (1) Development of the model itself.
  - (1) Smaller companies will need simpler explanation of this system.
  - (1) Time to adequately review literature and the National Research Council's Report Recommendation.
  - (1) Attempting to include PM 110 and cooling guidelines in the HACCP program— they are not applicable to most products and only confuse industry and regulatory officers.
  - (1) Main meeting room space could have been larger— more elbow space; overhead projection was too low.
  - (1) Subject matter expert was not an expert in the subject, but instead a USDA inspector.
  - (1) "Nit-picking" and obvious attempt at vagueness exhibited on occasion by both USDA and industry.
14. Please use the rest of this page to make any additional comments that may help us understand your thoughts about the workshop and improve future activities.

(23 comments)

**Workshop-related:**

- (5) Overall excellent! The presentation, visual aids and USDA's planning were excellent. The workshop was exceptional and productive. Continue with the workshops; apply what was learned here to future groups. This was a tremendous opportunity to be part of the regulatory process.
- (2) The first 7 sections of the program could have been more condensed. Remove cooling guidelines, PM 110 and other non-HACCP based guidelines from the HACCP manual so that they are not included in any HACCP plan.
- (2) Workshop schedule should conclude in the mid-afternoon to allow for airline departures. Schedule 1-1/2 hours for lunch each day with this size of a group. Without the leeway afforded by ending sessions early, we would have been too rushed since not enough lunch facilities were close-by.
- (1) Would like to take a specific product at the end of the workshop and apply the generic model to see if it works or not or how much modification it needs.
- (1) The only issue was the tendency for closure based on a rather casual voting system.
- (1) Provide better definitions of the 7 principles before asking the group to define them for the assigned critical control points.
- (1) Steering committee selection should have been based on selection of persons most familiar with HACCP and from different industry/production facility environments rather than voting for one rep from each group. The final group selected in general covers the above categories, although there are no representatives from small companies.
- (1) Orchestrated social functions might have helped group dynamics.

HACCP-related:

- (1) I am concerned that USDA will not be able to demonstrate quantitative benefits of HACCP in pilot plants. They must stress qualitative benefits and consider a study longer than 6 months.
- (1) Mention TQM and its role in HACCP. Teamwork, training, education of all employees, and operator control are also necessary. A HACCP program without these management tools stands naked and is destined to failure.
- (1) There is not sufficient incentive to be a pilot study plant.

Other ideas:

- (2) Need to have a room large enough to hold all attendees without obstructions to view (e.g., an auditorium setting). The group may have been too large.
- (1) A one-page summary outline of the general approach used to develop the generic HACCP model would be of general use to the industry.
- (1) Maintaining a semi-official continuum of communication with/among/between attendees after the workshop probably has merit given the long-term objectives of this important initiative.
- (1) USDA should consider the idea of forming a veterinary food safety division of the Institute of Food Technologists to professionally integrate with the technical community that will ultimately execute the objectives of the HACCP initiative.
- (1) Use color-coded name tags to differentiate among Participants, Observers and FSIS staff.





## **SECTION II— OBSERVERS**

### **SUMMARY OF OBSERVERS' RESPONSES TO EVALUATION QUESTIONNAIRE**



## SUMMARY OF OBSERVERS' RESPONSES

### RESPONDENT CHARACTERISTICS

1. Which grouping below best characterizes your current affiliation?

Meat & Poultry Industry:	8/50%	Consultant to Meat & Poultry Industry:	1/6%
Trade Association:	1/6%	Salad Industry:	1/6%
Educational Institution:	1/6%	Retailer/Wholesaler:	1/6%
Government:	3/19%		

2. If you marked "Meat & Poultry Industry" in Question 1, please indicate all groupings below which best characterize your industry type and the total production volume of your establishment(s). [Low Volume Establishment = 1 - 59,999 lbs. produced/Quarter; Medium Volume Establishment = 60,000 - 1,000,000 lbs. produced/Quarter; High Volume Establishment = more than 1,000,001 lbs. produced/Quarter]

Meat & Poultry Industry	Low Volume Establishment(s):	0/0%
	Medium Volume Establishment(s):	1/13%
	High Volume Establishment(s):	2/25%
Poultry Industry	Low Volume Establishment(s):	0/0%
	Medium Volume Establishment(s):	0/0%
	High Volume Establishment(s):	1/13%
Meat Industry	Low Volume Establishment(s)	0/0%
	Medium Volume Establishment(s)	0/0%
	High Volume Establishment(s)	4/50%

3. Days attended (mark all that apply):      1 Day: 2/13%      2 Days: 4/25%      3 Days: 10/63%

4. Please check one:      Observer: 16      Participant: 0

### HACCP MODEL DEVELOPMENT

	<u>Very Successful</u>	<u>Successful</u>	<u>Somewhat Successful</u>	<u>Not Successful</u>	<u>Very Unsuccessful</u>	<u>Don't Know</u>
5. Overall, how successful was the workshop in:						
a. Identifying Critical Control Points (CCPs)?	2/13%	6/38%	7/44%	0/0%	0/0%	1/6%
b. Determining critical limits for each CCP?	1/6%	3/19%	10/63%	1/6%	0/0%	1/6%
c. Developing monitoring plan activity for identified CCPs?	1/6%	9/56%	3/19%	2/13%	0/0%	1/6%
d. Developing corrective action approaches?	2/13%	8/53%	4/27%	0/0%	0/0%	1/7%
e. Developing record-keeping systems?	3/20%	5/33%	5/33%	0/0%	1/7%	1/7%
f. Developing verification procedures?	3/23%	6/46%	3/23%	0/0%	0/0%	1/8%
g. Developing a generic HACCP model?	1/8%	8/62%	3/23%	0/0%	0/0%	1/8%

**NOTE:** Results are presented as number of responses/% of responses for each category.



# DESIGN AND OPERATION OF WORKSHOP

	<u>More than Adequate</u>	<u>Adequate</u>	<u>Marginally Adequate</u>	<u>Inadequate</u>	<u>Very Inadequate</u>	<u>Don't Know</u>
6. Please rate the workshop in terms of:						
a. Development of a generic product/process description	0/0%	12/80%	3/20%	0/0%	0/0%	0/0%
b. Development of process flow diagram	3/19%	10/63%	3/19%	0/0%	0/0%	0/0%
c. Organization of the three days	5/31%	8/50%	1/6%	2/13%	0/0%	0/0%
d. Use of small "break-out" groups	7/44%	7/44%	1/6%	0/0%	0/0%	1/6%
e. Reporting of small "break-out" group activities to entire group	7/47%	7/47%	0/0%	0/0%	0/0%	1/7%
f. Opportunity for input from Observers	2/13%	6/38%	6/38%	2/13%	0/0%	0/0%
g. Opportunity for input from Participants	8/50%	8/50%	0/0%	0/0%	0/0%	0/0%
h. Effectiveness of facilitators in helping achieve workshop objectives	4/25%	9/56%	3/19%	0/0%	0/0%	0/0%
i. Effectiveness of subject matter experts in helping achieve workshop objectives	3/19%	10/63%	1/6%	0/0%	0/0%	2/13%
j. Effectiveness of group leaders in helping achieve workshop objectives	3/19%	10/63%	2/13%	0/0%	0/0%	1/6%
k. Effectiveness of group reporters in helping achieve workshop objectives	3/20%	9/60%	1/7%	0/0%	0/0%	2/13%
l. Completion of workshop objectives.	4/27%	8/53%	2/13%	0/0%	0/0%	1/7%
	<u>Strongly Agree</u>	<u>Agree</u>	<u>Neutral</u>	<u>Disagree</u>	<u>Strongly Disagree</u>	<u>Don't Know</u>
7. Please indicate your degree of agreement with each of the following statements.						
a. The HACCP model developed by the workshop participants is a viable framework for the refrigerated food industry to implement on a test basis.	1/7%	7/47%	4/27%	0/0%	0/0%	3/20%
b. The workshop format offers a sound approach for producing a generic HACCP model for other meat and poultry products.	2/13%	6/38%	6/38%	0/0%	0/0%	2/13%
c. The presence of Observers was beneficial to the workshop.	2/13%	10/63%	1/6%	2/13%	0/0%	1/6%
d. The workshop resulted in a useful generic HACCP model developed by industry participants.	1/6%	8/50%	4/25%	0/0%	0/0%	3/19%

WORKSHOP MATERIALS (Observers: Please skip Question 8 and continue with Question 9.)

- |  | <u>Very<br/>Useful</u> | <u>Useful</u> | <u>Somewhat<br/>Useful</u> | <u>Not<br/>Useful</u> | <u>Not At All<br/>Useful</u> |
|--|------------------------|---------------|----------------------------|-----------------------|------------------------------|
| 8. Overall, how useful were the written materials for: |                        |               |                            |                       |                              |
| a. Assessing finished product hazards?                 |                        |               |                            |                       |                              |
| b. Assessing ingredient hazards?                       |                        |               |                            |                       |                              |
| c. Determining placement of CCPs on flow diagram?      |                        |               |                            |                       |                              |
| d. Determining critical limits for each CCP?           |                        |               |                            |                       |                              |
| e. Developing assigned CCP monitoring plan?            |                        |               |                            |                       |                              |
| f. Developing corrective action approaches?            |                        |               |                            |                       |                              |
| g. Developing record-keeping systems?                  |                        |               |                            |                       |                              |
| h. Developing verification procedures?                 |                        |               |                            |                       |                              |
| i. Developing a generic HACCP model?                   |                        |               |                            |                       |                              |

OBSERVERS WERE INSTRUCTED TO  
SKIP THIS QUESTION.

WORKSHOP EXPECTATIONS

9. Did the workshop accomplish what you expected? Please explain. Yes: 12/92% No: 1/8%

(11 comments)

- (4) Yes. The workshop showed me the step-by-step process of building a HACCP plan. I learned the nuts and bolts of HACCP. The basic approach was clear and in place after day one.
- (3) Both Yes and No. There were too many difficulties involved in defining a generic HACCP model on such a broad category of products. The generic model was too generic and may be of questionable use.
- (2) Yes. Developing the model in a workshop was an excellent process, bringing industry and government regulators together. Good exchange—both FSIS and industry had a chance to hear where the other stands/what the others' concerns are.
- (1) No. Too much time was spent on explaining what USDA FSIS has done and too little on specific goals and objectives: What is expected of the Participants? Of the Observers? What is the group trying to create?
- (1) No. It does not appear to be feasible to develop a generic HACCP flow diagram by a committee of 60 people.

10. Did the individual sessions accomplish what you expected? Please explain. Yes for All: 6/46% Yes for Some: 7/54% No for All: 0/0%

(4 comments)

- (2) Yes for Some. Some sessions were not focussed and needed better organized guidelines. Give an outline of steps to follow and goals to be achieved. Clearer directions or definitions of the tasks would speed up the process. Need better training of facilitators in terms of group dynamics/brainstorming.



- (1) Yes. The brainstorming and the dialogue among industry Participants and FSIS in the break-out sessions were quite effective. Everyone was eager to participate and very well-prepared.
- (1) Yes. The individual sessions were by far the most effective use of time. The periodic exposure to the large group evaluation/input was definitely an asset.

#### COMMENTS

11. Methods other than a workshop format could have been employed to develop a generic HACCP model. Examples of options include an FSIS request for (a) comments on an FSIS-generated model published in the Federal Register; (b) development of a model by selected academicians; or (c) submission to FSIS of independently-generated models. Please indicate your preference for one of the above-listed options, or describe any others not mentioned that you would like to be considered by FSIS in the future.

##### (12 comments)

- (4) The open forum of the workshop which permits discussion, challenges and development of positions, concepts and principles.
- (4) Workshop is best, but have initial input of a model developed by a small committee of FSIS/ industry/academia and present it to the entire workshop. The large workshop would then have a basis to work from. It would be helpful if Participants understood the reason and importance of product descriptions and flow diagram ahead of time. An example would have helped— people were unsure of how to start.
- (2) Use a combination of a, b and c and then submit the model to workshop manipulation.
- (1) Use c: submission to FSIS of independently-generated models.
- (1) Use b: a third party (academia) might reduce the bad feelings that FSIS is forcing a mandatory program on industry.

12. What was *most* beneficial to you about the workshop?

##### (13 comments)

- (4) The interactions of the knowledgeable members of industry and FSIS as they worked through building the HACCP model were most beneficial. Ideas were from a good cross-section of the industry.
- (3) To understand HACCP, the complexity of HACCP industry-wide, and how to create a HACCP program.
- (2) The varied input gave much more depth to the development of the model than a one-sided, single company/industry/individual effort would have. The in-depth participation in generic model development served as a better learning tool than any course in HACCP.
- (1) The open mindedness of FSIS.
- (1) That it occurred!
- (1) Being provided with hard copies of each step as it was completed was extremely helpful.
- (1) The break-out group discussion, even though I was not allowed to participate. Opportunity for Observers to comment at end of group activity would be appropriate, if time permits.



13. What was *least* beneficial to you about the workshop?

(8 comments)

- (4) Introductions, objectives, workshop model, etc. could have been summarized in one hour. Get this material out ahead of time and shorten the workshop agenda or explanation thereof.
- (1) I would have liked to have seen a better or clearer picture during the first day's activities.
- (1) Hold one or more informal meetings in the evening even if it is an optional get-together to encourage interaction in a relaxed atmosphere.
- (1) The room arrangement— difficult to see/hear participants.
- (1) Not being able to participate actively. This was an exercise in patience for me.

14. Please use the rest of this page to make any additional comments that may help us understand your thoughts about the workshop and improve future activities.

(29 comments)

Workshop-related:

- (5) The use of computers and computer-run overhead projection was key to the success and flow of the workshop. Electronics process was excellent. The audio-visual portion of the presentation was very well done. Having an in-room photocopy machine was very useful. Appreciated on-going updates of generic HACCP model by the FSIS staff. This was critical to the success of the workshop.
- (5) The meeting room was inadequate because acoustics and screens were not adequate from the back of the room. It really helped when we were allowed to move up closer to the front of the room so we could see and hear better. Have a speaker by the Observers and/or a microphone available for Participants so their comments can be heard by all. There was too much noise distraction because of FSIS people talking in the back of the room.
- (4) Observers should have a complete notebook/workbook, even if on a daily loan basis. At least provide Observers with the last portion of the manual so they could effectively follow the program (*i.e.*, the Principles and HACCP forms).
- (3) It would have been easier to use an existing model of HACCP from industry or one developed by National Marine Fisheries Service as an example on the first day. Then it would be clearer what CCPs are. Need to distinguish between a control point and a critical control point (CCP). CCPs were not adequately defined. Also, some Participants couldn't distinguish between quality assurance programs and HACCP.
- (1) It is obvious that USDA/FSIS has done extensive preparation for HACCP implementation to assure industry and consumer activist groups that the program is indeed a strengthening of FSIS regulatory activities. Public relations preparation was well done.
- (1) Need more training of Participants on brainstorming procedures so breakout sessions would be more efficient and more ideas brought out and captured.
- (1) Suggest placing facilitators at ends of each table to watch for raised hands during discussion— less vocal Participants were often overlooked.

- (1) Need to offer examples of monitoring during introductory instructions to the group.
- (1) Although the overall size of the group was somewhat unwieldy, the breadth of information/ experience represented was invaluable.
- (1) The smaller break-out sessions take the majority of the load off the general assembly.
- (1) Terminology in phrases and contents (*i.e.*, "process experts") should be synchronized or coordinated.
- (1) Well done.

HACCP-related:

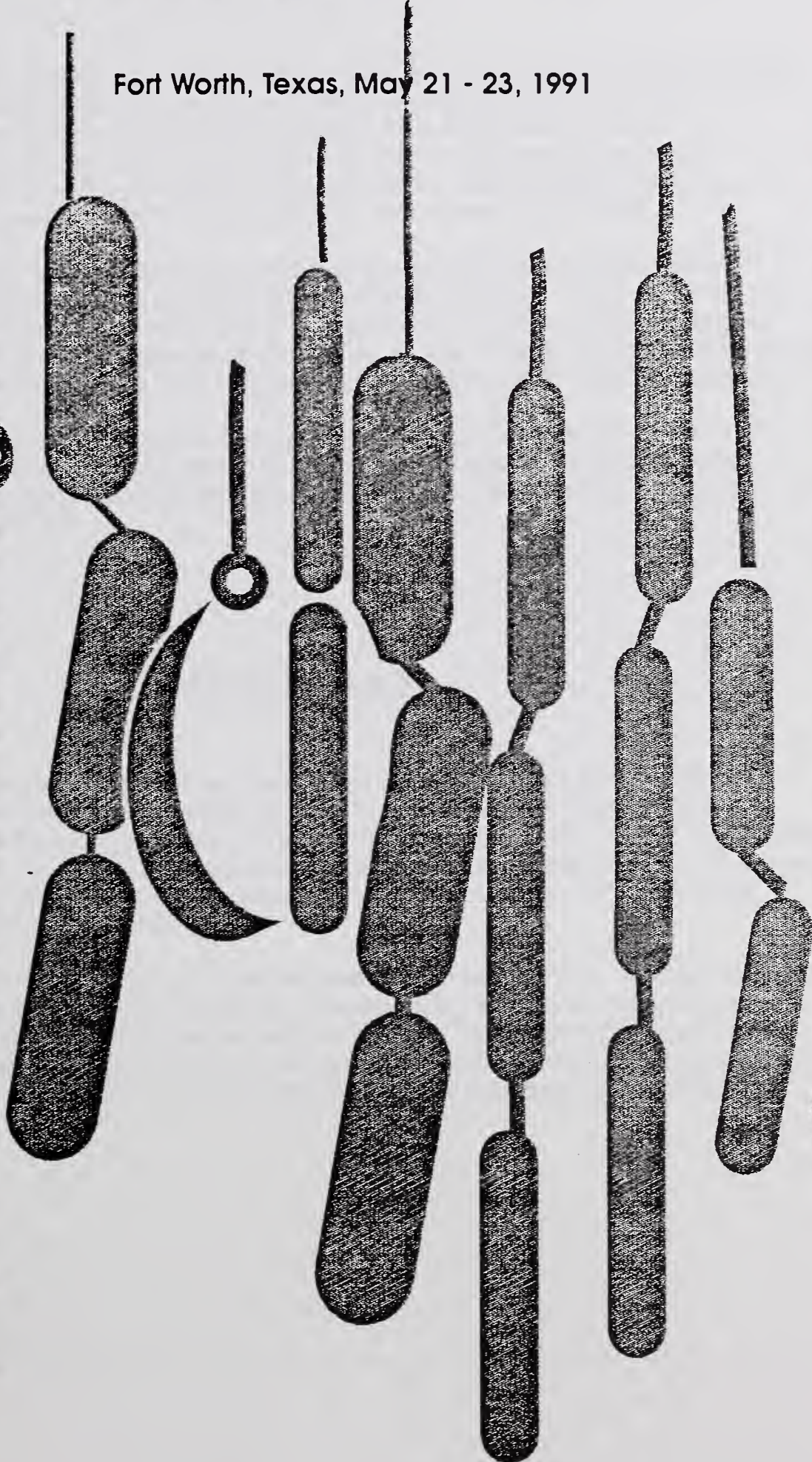
- (1) Suggest FSIS develop for the industry a mechanism to readily show that a product was produced under an "approved HACCP program." This would be useful to the food service industry and local government regulators.
- (1) Hazard analysis in Principle 1 does need to be reviewed and changed.
- (1) CCPs for receiving and preparation should be optional for specific products.
- (1) CCP for gas blend is probably not necessary.



# Summary of the Evaluation Results of the Workshop for HACCP Model Development

Fort Worth, Texas, May 21 - 23, 1991

Cooked Sausage



Cooked Sausage





## INTRODUCTION

This report presents the evaluation results from the Food Safety and Inspection Service (FSIS) of the United States Department of Agriculture (USDA) workshop to develop a generic model for a hazard analysis and critical point (HACCP) plan for cooked sausage. Representatives from industry, trade associations and government met in Fort Worth, Texas, May 21 - 23, 1991, for this workshop which focused on cooked sausage products. The workshop was open to the public for observation, on a reserved space basis.

Participants and Observers were asked to complete a questionnaire which asked them questions related to the design and operation of the workshop, the workshop materials, the process employed in developing a generic HACCP model, and their views concerning the workshop approach and any suggested improvements. Of the 35 Participants and 25 Observers in attendance, 29 Participants (83%) and 18 Observers (72%) responded to the questionnaire.

This evaluation activity is one in a series of on-going evaluation tasks that are a part of the HACCP Implementation Study. The results of this evaluation should serve to help plan subsequent workshops and to provide background information to aid in future planning decisions related to HACCP.

## REPORT PLAN

This report is organized into two sections. Section I presents the results and summary of Participants' responses and Section II presents those for the Observers. Results of the **multiple-choice questions** are presented in a format based on that of the original questionnaire. The responses are reported by number and percent of responses for each category. Percentages reported are based on the number of responses to each question and do not always total 100 percent due to arithmetic rounding.

Results of the **open-ended questions** are also summarized in each Section. A content analysis was performed for all hand-written comments. Respondents' remarks are paraphrased and grouped by question. Some respondents made multiple comments while others made none, thus the number of comments per question does not equal the number of respondents. The number of respondents who concurred with each comment is listed parenthetically.





**SECTION I— PARTICIPANTS**

**SUMMARY OF PARTICIPANTS' RESPONSES TO  
EVALUATION QUESTIONNAIRE**



## SUMMARY OF PARTICIPANTS' RESPONSES

### RESPONDENT CHARACTERISTICS

1. Which grouping below best characterizes your current affiliation?

Meat & Poultry Industry:	23/86%	Education Institution:	1/3%
Trade Association:	1/3%	Research & Development Laboratory:	1/3%
Casing Producer:	1/3%		

2. If you marked "Meat & Poultry Industry" in Question 1, please indicate all groupings below which best characterize your industry type and the total production volume of your establishment(s). [Low Volume Establishment = 1 - 59,999 lbs. produced/Quarter; Medium Volume Establishment = 60,000 - 1,000,000 lbs. produced/Quarter; High Volume Establishment = more than 1,000,001 lbs. produced/Quarter]

Meat & Poultry Industry	Low Volume Establishment(s):	1/4%
	Medium Volume Establishment(s):	0/0%
	High Volume Establishment(s):	5/20%
Meat Industry	Low Volume Establishment:	0/0%
	Medium Volume Establishment:	3/12%
	High Volume Establishment:	14/56%
Poultry Industry	Low Volume Establishment(s):	0/0%
	Medium Volume Establishment(s):	0/0%
	High Volume Establishment(s):	2/8%

3. Days attended (mark all that apply): 1 Day: 0/0% 2 Days: 0/0% 3 Days: 29/100%

4. Please check one: Observer: 0 Participant: 29

### HACCP MODEL DEVELOPMENT

	<u>Very Successful</u>	<u>Successful</u>	<u>Somewhat Successful</u>	<u>Not Successful</u>	<u>Very Unsuccessful</u>	<u>Don't Know</u>
5. Overall, how successful was the workshop in:						
a. Identifying Critical Control Points (CCPs)?	3/10%	10/35%	14/48%	2/7%	0/0%	0/0%
b. Determining critical limits for each CCP?	2/7%	12/41%	14/48%	1/3%	0/0%	0/0%
c. Developing monitoring plan activity for identified CCPs?	2/7%	18/64%	8/29%	0/0%	0/0%	0/0%
d. Developing corrective action approaches?	3/10%	21/72%	3/10%	2/7%	0/0%	0/0%
e. Developing record-keeping systems?	2/7%	21/72%	5/17%	1/3%	0/0%	0/0%
f. Developing verification procedures?	2/8%	16/64%	5/20%	2/8%	0/0%	0/0%
g. Developing a generic HACCP model?	2/8%	14/54%	8/31%	2/8%	0/0%	0/0%

NOTE: Results are presented as number of responses/% of responses for each category.



# DESIGN AND OPERATION OF WORKSHOP

	<u>More than Adequate</u>	<u>Adequate</u>	<u>Marginally Adequate</u>	<u>Inadequate</u>	<u>Very Inadequate</u>	<u>Don't Know</u>
6. Please rate the workshop in terms of:						
a. Development of a generic product/process description	2/7%	23/82%	2/7%	1/4%	0/0%	0/0%
b. Development of process flow diagram	7/24%	21/72%	1/3%	0/0%	0/0%	0/0%
c. Organization of the three days	5/17%	16/55%	8/28%	0/0%	0/0%	0/0%
d. Use of small "break-out" groups	10/35%	15/52%	4/14%	0/0%	0/0%	0/0%
e. Reporting of small "break-out" group activities to entire group	8/28%	21/72%	0/0%	0/0%	0/0%	0/0%
f. Opportunity for input from Observers	4/15%	13/48%	5/19%	3/11%	1/4%	1/4%
g. Opportunity for input from Participants	20/69%	9/31%	0/0%	0/0%	0/0%	0/0%
h. Effectiveness of facilitators in helping achieve workshop objectives	8/28%	15/52%	5/17%	0/0%	1/3%	0/0%
i. Effectiveness of subject matter experts in helping achieve workshop objectives	3/10%	13/45%	9/31%	3/10%	1/3%	0/0%
j. Effectiveness of group leaders in helping achieve workshop objectives	11/38%	17/59%	1/3%	0/0%	0/0%	0/0%
k. Effectiveness of group reporters in helping achieve workshop objectives	9/31%	18/62%	1/3%	1/3%	0/0%	0/0%
l. Completion of workshop objectives.	2/7%	24/86%	2/7%	0/0%	0/0%	0/0%
	<u>Strongly Agree</u>	<u>Agree</u>	<u>Neutral</u>	<u>Disagree</u>	<u>Strongly Disagree</u>	<u>Don't Know</u>
7. Please indicate your degree of agreement with each of the following statements.						
a. The HACCP model developed by the workshop participants is a viable framework for the industry to implement on a test basis.	1/3%	19/66%	5/17%	4/14%	0/0%	0/0%
b. The workshop format offers a sound approach for producing a generic HACCP model for other meat and poultry products.	3/10%	19/66%	4/14%	3/10%	0/0%	0/0%
c. The presence of Observers was beneficial to the workshop.	1/3%	9/31%	14/48%	3/10%	1/3%	1/3%
d. The workshop resulted in a useful generic HACCP model developed by industry participants.	0/0%	18/62%	6/21%	4/14%	1/3%	0/0%

**WORKSHOP MATERIALS** (Observers: Please skip Question 8 and continue with Question 9.)

	<u>Very Useful</u>	<u>Useful</u>	<u>Somewhat Useful</u>	<u>Not Useful</u>	<u>Not At All Useful</u>
8. Overall, how useful were the written materials for:					
a. Assessing finished product hazards?	5/17%	18/62%	5/17%	0/0%	1/3%
b. Assessing ingredient hazards?	5/17%	17/59%	6/21%	0/0%	1/3%
c. Determining placement of CCPs on flow diagram?	4/14%	16/55%	9/31%	0/0%	0/0%
d. Determining critical limits for each CCP?	3/10%	15/52%	9/31%	2/7%	0/0%
e. Developing assigned CCP monitoring plan?	5/17%	17/59%	6/21%	1/3%	0/0%
f. Developing corrective action approaches?	4/14%	16/55%	5/17%	4/14%	0/0%
g. Developing record-keeping systems?	3/10%	18/62%	7/24%	1/3%	0/0%
h. Developing verification procedures?	4/14%	17/59%	7/24%	1/3%	0/0%
i. Developing a generic HACCP model?	4/14%	17/59%	6/21%	2/7%	0/0%

**WORKSHOP EXPECTATIONS**

9. Did the workshop accomplish what you expected? Yes: 22/76% No: 7/24%  
Please explain.

(23 comments)

- (8) Yes. Format worked well to get maximum participation. It clarified several points for me. I have a more in-depth understanding of industry concerns and a better understanding of exactly what FSIS expects from individual plants. Everything was covered in sufficient detail and written support documents were provided to facilitate adaptation to our operations "back home." We have our generic model which will not be overly cumbersome on even small plants. A useful model was developed albeit painfully.
- (5) Yes. To a degree. A generic model will come from this workshop though I suspect it will need to be greatly refined when put in place. More likely each plant will need to write their own program. A generic HACCP program for a specific product was developed. The plan is very generic and takes into consideration small and large packers' needs. However—receipt of raw (meat) materials must be a CCP. I have reservations on the applicability of the generic model, *i.e.*, I see the need for control points vs. critical control points in the flow diagram. The model seems very limited in scope and might not address all issues.
- (4) No. It did not get at the "gut" HACCP issues (*i.e.*, assessing finished product hazards and assessing ingredient hazards). There was a lack of depth in technical/analytical approach to hazard prevention and detection. The workshop moved too slowly. We needed less introduction on day one; use 3/4 of this day for flow charting, *etc.*—*i.e.*, cut to the chase. Spend more time on flow chart, CCPs, *etc.*
- (2) No. My expectations for this workshop were (1) to cooperatively develop a HACCP model with industry and FSIS, and (2) develop a generic model. Instead, we filled in the blanks of the FSIS pre-determined HACCP model. This isn't necessarily the only valid HACCP model we could develop for the industry. I felt that FSIS attempted to drive the group to a conclusion FSIS had already reached. The focus seemed to be on fitting CCPs to predetermined areas of concern.



(2) No. The HACCP model is too generic to satisfy all groups. The HACCP document was compromised to meet the current practices of the small firms.

(2) No. We needed to have prepared ourselves better before the meeting. This would/could have been accomplished with information (workshop book) sent to us prior to the meeting.

10. Did the individual sessions accomplish what you expected? Please explain.	Yes for All: 18/67%	Yes for Some: 9/33%	No for All: 0/0%
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(14 comments)

(10) Yes. The small group was more effective in that the participants were on an equal level—easier to be heard. Good cross-section of personalities and operations. The small group concept is great for raising the participation level and making rapid progress. We had good interaction and idea exchanges in our small group. We were able to get input from other individuals on their ideas of what HACCP should accomplish. These were the best places to get total participation from all participants. We stayed on track and kept moving. If possible more should be done in small groups. The small group work streamlined development procedures and could have been used more to develop other parts of the model. I would have liked more small group dynamics across all the CCPs—not just the few we were assigned.

(2) Yes for Some. Time spent on hazard analyses and assignment of CCPs was not efficiently and effectively used. Needed more discussion and assessment of actual risk based on available scientific knowledge to develop CCPs.

(1) Yes for Some. Some issues such as metal detection and microtesting were surfaced but not put into the generic plan because of the attitude perceived in the large group.

(1) Yes. Individual sessions went well—problems occurred when individual sessions reported to the group as a whole.

COMMENTS

11. Methods other than a workshop format could have been employed to develop a generic HACCP model. Examples of options include an FSIS request for (a) comments on an FSIS-generated model published in the *Federal Register*; (b) development of a model by selected academicians; or (c) submission to FSIS of independently-generated models. Please indicate your preference for one of the above-listed options, or describe any others not mentioned that you would like to be considered by FSIS in the future.

(22 comments)

Concerning use of a workshop format:

(11) Stay with the workshop format—it was excellent! This is the best method with industry being able to actively participate in the development of future FSIS regulations. This is probably the best method for all to air their options. Workshops attended by FSIS and interested industry people will achieve the most nearly ideal balance of input heading to development of more equitable regulations. Use of a workshop combined with a steering committee is a good method.

(1) A review of independently-generated models would have been useful as an introduction.

(1) Use a workshop with FSIS and industry association representatives. Then submit that HACCP model to the industry for comments. Bring FSIS and industry association representatives back together to review comments and finalize the HACCP model.



Concerning other options:

- (4) Model by industry is best approach; a second choice would be development of a model by selected academicians if industry can select the academicians. Development of a model by selected academicians would be more non-partial.
- (3) Prefer submission to FSIS of independently-generated models.
- (1) Definitely should not use academicians' suggestions in the development of a HACCP model.
- (1) Prefer FSIS to request comments on an FSIS-generated model published in the *Federal Register*.

12. What was *most* beneficial to you about the workshop?

(31 comments)

- (19) Interaction with a good cross-section of peers and FSIS (both field inspectors and headquarters personnel). Large and small group discussions. Hearing the pros and cons on various issues. Gaining immediate feedback and learning concerns of other industry reps (both within my industry and within other industries). Meeting with large and small packers and government personnel who are responsible for writing programs. Insight into current thinking of FSIS regarding HACCP. Industry participation was open to all those concerned and allowed for a wide variety of concerns to be voiced. That industry/FSIS commitment was jointly required. The opportunity to express my views from my level (a low-volume establishment) of the industry.
- (6) The exposure to the HACCP theory and increased knowledge of HACCP development programs. A very rapid method of getting "on line" with the approaches and techniques used by major players in the industry. Variation in HACCP concepts as perceived by industry personnel. Talking with other industry members about their viewpoints on HACCP, their companies' approaches toward HACCP and how they plan to implement it.
- (3) Small group breakout sessions/discussions.
- (3) Large and small group discussions.
- (3) A more thorough understanding of the HACCP System and how to write a program and implement it at the plant. Flow chart and CCP identification. The workbook and the step-by-step procedures needed to formulate a HACCP program.

13. What was *least* beneficial to you about the workshop?

(22 comments)

- (7) Tuesday's sessions were very general—the whole session could have been shortened. The first morning was a waste of time. The introductions and summaries and HACCP overview were least beneficial. We spent too much time on HACCP theory—this should have been accomplished prior to the workshop.
- (6) Large group bickering over minutia plus constant reminder of small plant restrictions and limitations. Allowing the large group discussion to drag. Too many general comments that didn't help us accomplish our objectives. Too many speakers. Three days of endless discussion.

- (2) The speakers spoke in a monotone voice and read the materials from the workbook. They did not keep our interest. We don't need information read to us.
  - (2) All the time spent trying to clarify issues that could have been quickly resolved if the subject matter experts would have taken charge and kept us on track. Subject matter experts basically did not contribute in the large group. Their perspectives would have been beneficial.
  - (2) Too much time on risk assessment. Risk assessment is really not that useful since we know where the risks are already and will place CCPs where needed without having to go through risk assessment. Numbering system for hazards creates confusion among participants.
  - (1) The use of non-meat company personnel as participants. They should definitely not be on the steering committee.
  - (1) Not having information, book (workshop book) beforehand.
  - (1) Nothing. Every part was extremely helpful.
14. Please use the rest of this page to make any additional comments that may help us understand your thoughts about the workshop and improve future activities.

(26 comments)

Workshop-related:

- (4) I felt the overall program started off too slowly. Start with workshop objectives. Maybe the introduction portion of program could be shortened and an optional review presented at the start of sessions to bring those participants who need it up to speed on HACCP. Issue the workbook and other information before the meeting. Two weeks would provide time for participants to review the materials so they can come to the meeting better prepared.
- (3) Discussions shouldn't be allowed to get bogged down over long periods of time on tangential discussions. Need better leadership in closure. This workshop could be completed in 2 days if the facilitator would explain why a certain CCP was included or deleted at a previous workshop. This would still allow the large group to discuss the CCP and decide on it but, hopefully, not spend 2 hours developing it and then dropping it in the end.
- (2) Overall the workshop was extremely beneficial to all parties concerned.
- (2) I really wonder what is/has been accomplished by the development of this model. It is apparent that FSIS has a clear idea of what is expected in a plant implementation as evidenced by the pilot plant program test protocol. During the session it became apparent that FSIS has the final product developed thus our efforts were not necessary. Not so much FSIS model direction.
- (1) Be sensitive to busy periods in the industry and have "workshops" during slow periods. The week prior to "Memorial Day" is one of the busy periods for the cooked sausage industry. Usually after Christmas and prior to Easter are slow periods.
- (1) Great graphics and material return!!
- (1) Simplify the worksheet entitled "List Product Categories and Ingredients," which is too complex, to address only two groupings of ingredients: "Meat and Meat By-Products" and "All Other." The discussion to sort non-meat ingredients into finer categories (binders/extenders, spices/flavorings, etc.) is a time-waster.



(1) Use more breakouts.

(1) The HACCP document was compromised to meet the current practices of the small firms.

HACCP-related:

(1) Need to have better understanding of what HACCP is and is not!!! Confusion on process control point, quality control point, hazard control point and regulation control points. HACCP as presented came off as a TQC (Total Quality Control) program.

(1) As I came into this workshop, I was 100% for HACCP. As I leave, I'm not so sure that this program can be developed generically. Education of inspectors will be required to assure that knowledgeable deviations from the final plan can be fairly accomplished.

(1) It is unfortunate that the development of a comprehensive HACCP model was impacted, to an extent, by the fear that what was developed would become regulatory requirements without a statistically valid, scientifically-based approach. When the statement was made that the model would be the minimum requirement that feeling was reinforced.

Other ideas:

(2) Provide a list of all observers, participants and FSIS personnel with titles and note their functions regarding HACCP. Include (telephone number, job title, location, company, etc.)

(1) Develop a flow diagram including all present FSIS regulations/requirements included as CCPs, CPs, etc. I believe most CCPs have been defined by regulations but not in a formal format. This information would be an asset to all (FSIS and industry).

(1) Could have selected a steering committee or group from applicants to meet day prior to brainstorm and hammer out CCPs and present them for comment.

(1) We needed more microphones.

(1) Room great!— Sound great! Excellent facility and hotel.

(1) I now know what it would be like to be a U.S. Representative or Senator!

15. Considering the agenda for the *first morning* of the workshop, should any of the introductory activities or presentations be expanded, shortened, or modified as to content, to better meet your needs? Please explain.

(28 comments)

(19) Shorten and modify this section. Many of Tuesday's session assumed no (little) knowledge of the HACCP program. Too much time was spent on the first 1/2 day on introductions and mechanics. This information could be condensed. The first two hours should be compressed to 1/2 hour to allow more time for more pertinent discussions such as discussions of flow charts and CCPs. The HACCP Overview is not needed unless it is very much shortened. This is a work session: we don't need all the extra information, etc. Introductions of FSIS were too long and not necessary. Quickly introduce everyone then charge the group with their responsibilities and explain what direction FSIS's HACCP study will take upon completion of the workshop.

(4) No need to change. The pace was correct. Need to go ahead with this pace and set the agenda accordingly. It was fine as it was carried out.



- (2) Send information packet containing the reading material necessary for the 1st morning to participants and ask that they become familiar with the information before attending. Mail a current "briefing" paper to the participants prior to the workshop to bring them up-to-date and to free at least 1/2 of the first day for working sessions. Biographies of FSIS personnel involved could be included.
- (2) A review of current HACCP models and a discussion of practical application rather than theory may have kept some participants from confusing quality control with HACCP monitoring. This review could have been limited to 2 hours. If more information regarding the use of the model HACCP plan had been provided, the participants would have been able to give better input.

**SECTION II— OBSERVERS**

**SUMMARY OF OBSERVERS' RESPONSES TO  
EVALUATION QUESTIONNAIRE**





## SUMMARY OF OBSERVERS' RESPONSES

### RESPONDENT CHARACTERISTICS

1. Which grouping below best characterizes your current affiliation?

Meat & Poultry Industry:	9/50%	Consultant to Meat & Poultry Industry:	1/6%
Food Processor:	2/11%	Trade Association:	1/6%
Educational Institution:	2/11%	Other Federal Government:	1/6%
Other Government:	2/11%		

2. If you marked "Meat & Poultry Industry" in Question 1, please indicate all groupings below which best characterize your industry type and the total production volume of your establishment(s). [Low Volume Establishment = 1 - 59,999 lbs. produced/Quarter; Medium Volume Establishment = 60,000 - 1,000,000 lbs. produced/Quarter; High Volume Establishment = more than 1,000,001 lbs. produced/Quarter]

Meat & Poultry Industry	Low Volume Establishment(s):	0/0%
	Medium Volume Establishment(s):	0/0%
	High Volume Establishment(s):	5/56%
Meat Industry	Low Volume Establishment(s):	0/0%
	Medium Volume Establishment(s):	0/0%
	High Volume Establishment(s):	4/44%
Poultry Industry	Low Volume Establishment(s):	0/0%
	Medium Volume Establishment(s):	0/0%
	High Volume Establishment(s):	0/0%

3. Days attended (mark all that apply): 1 Day: 2/11% 2 Days: 2/11% 3 Days: 14/78%
4. Please check one: Observer: 18 Participant: 0

### HACCP MODEL DEVELOPMENT

5. Overall, how successful was the workshop in:

	<u>Very Successful</u>	<u>Successful</u>	<u>Somewhat Successful</u>	<u>Not Successful</u>	<u>Very Unsuccessful</u>	<u>Don't Know</u>
a. Identifying Critical Control Points (CCPs)?	0/0%	13/72%	2/11%	2/11%	1/6%	0/0%
b. Determining critical limits for each CCP?	1/6%	7/39%	6/33%	3/17%	1/6%	0/0%
c. Developing monitoring plan activity for identified CCPs?	0/0%	11/61%	4/22%	2/11%	1/6%	0/0%
d. Developing corrective action approaches?	1/6%	7/39%	7/39%	2/11%	1/6%	0/0%
e. Developing record-keeping systems?	2/11%	9/50%	5/28%	1/6%	1/6%	0/0%
f. Developing verification procedures?	1/6%	8/47%	5/29%	2/12%	1/6%	0/0%
g. Developing a generic HACCP model?	2/11%	9/50%	5/28%	1/6%	1/6%	0/0%

**NOTE:** Results are presented as number of responses/% of responses for each category.

# DESIGN AND OPERATION OF WORKSHOP

	<u>More than Adequate</u>	<u>Adequate</u>	<u>Marginally Adequate</u>	<u>Inadequate</u>	<u>Very Inadequate</u>	<u>Don't Know</u>
6. Please rate the workshop in terms of:						
a. Development of a generic product /process description	4/22%	9/50%	4/22%	1/6%	0/0%	0/0%
b. Development of process flow diagram	2/11%	12/67%	3/17%	0/0%	0/0%	1/6%
c. Organization of the three days	5/29%	7/41%	5/29%	0/0%	0/0%	0/0%
d. Use of small "break-out" groups	6/33%	8/44%	3/17%	0/0%	0/0%	1/6%
e. Reporting of small "break-out" group activities to entire group	3/17%	11/61%	3/17%	1/6%	0/0%	0/0%
f. Opportunity for input from Observers	0/0%	7/44%	5/31%	2/13%	2/13%	0/0%
g. Opportunity for input from Participants	7/39%	10/56%	0/0%	1/6%	0/0%	0/0%
h. Effectiveness of facilitators in helping achieve workshop objectives	2/11%	12/67%	3/17%	0/0%	1/6%	0/0%
i. Effectiveness of subject matter experts in helping achieve workshop objectives	0/0%	6/33%	6/33%	1/6%	1/6%	4/22%
j. Effectiveness of group leaders in helping achieve workshop objectives	1/6%	13/72%	2/11%	0/0%	0/0%	2/11%
k. Effectiveness of group reporters in helping achieve workshop objectives	2/11%	14/78%	1/6%	0/0%	0/0%	1/6%
l. Completion of workshop objectives.	2/11%	11/61%	2/11%	1/6%	1/6%	1/6%
	<u>Strongly Agree</u>	<u>Agree</u>	<u>Neutral</u>	<u>Disagree</u>	<u>Strongly Disagree</u>	<u>Don't Know</u>
7. Please indicate your degree of agreement with each of the following statements.						
a. The HACCP model developed by the workshop participants is a viable framework for the industry to implement on a test basis.	2/12%	10/59%	1/6%	2/12%	2/12%	0/0%
b. The workshop format offers a sound approach for producing a generic HACCP model for other meat and poultry products.	4/22%	8/44%	3/17%	2/11%	1/6%	0/0%
c. The presence of Observers was beneficial to the workshop.	5/28%	5/28%	4/22%	1/6%	2/11%	1/6%
d. The workshop resulted in a useful generic HACCP model developed by industry participants.	3/17%	10/56%	1/6%	2/11%	2/11%	0/0%



WORKSHOP MATERIALS (Observers: Please skip Question 8 and continue with Question 9.)

- |  | <u>Very<br/>Useful</u> | <u>Useful</u> | <u>Somewhat<br/>Useful</u> | <u>Not<br/>Useful</u> | <u>Not At All<br/>Useful</u> |
|--|------------------------|---------------|----------------------------|-----------------------|------------------------------|
| 8. Overall, how useful were the written materials for: |                        |               |                            |                       |                              |
| a. Assessing finished product hazards?                 |                        |               |                            |                       |                              |
| b. Assessing ingredient hazards?                       |                        |               |                            |                       |                              |
| c. Determining placement of CCPs on flow diagram?      |                        |               |                            |                       |                              |
| d. Determining critical limits for each CCP?           |                        |               |                            |                       |                              |
| e. Developing assigned CCP monitoring plan?            |                        |               |                            |                       |                              |
| f. Developing corrective action approaches?            |                        |               |                            |                       |                              |
| g. Developing record-keeping systems?                  |                        |               |                            |                       |                              |
| h. Developing verification procedures?                 |                        |               |                            |                       |                              |
| i. Developing a generic HACCP model?                   |                        |               |                            |                       |                              |

OBSERVERS WERE INSTRUCTED TO  
SKIP THIS QUESTION.

WORKSHOP EXPECTATIONS

9. Did the workshop accomplish what you expected? Yes: 13/72% No: 5/28%  
Please explain.

(15 comments)

- (5) Yes. A generic HACCP model was developed which should assist in process standardization for this industry. This generic model will serve as the foundation on which to build plant-specific plans. FSIS representatives worked very closely with members of the industry to develop a generic HACCP plan everyone could agree upon and live with.
- (2) Yes. This format should be used in the future for major initiatives and/or changes in the inspection system. The workshop format facilitates communication and cooperation between regulatory agencies and industry. Industry can't say it doesn't have a voice or input in new initiatives. HACCP principles and the process for model construction were covered very well. Besides the hazard evaluation which needs to be re-thought in terms of chemical and physical hazards, the exercise provided industry and the regulatory agency a common approach to the implementation of HACCP on cooked sausage.
- (2) Yes. As an observer, it gave me a better understanding of HACCP and how it will work. It broadened the scope of alternatives each processor can apply to their particular products.
- (2) Yes. But qualified—in many of the discussions and decisions, there was a complete absence of any science being used. I do not understand what is "science-based" about this program (the generic model).
- (1) No. I do not believe the developed model will stand up in real plant operations, however, the workshop was an excellent training effort. Most of the people in attendance possessed a high degree of technical knowledge but this level of knowledge is not representative of cooked sausage manufacturers.



- (1) No. The CCPs chosen do not all reflect food safety. Need to separate food safety and quality. The industry participants do not all have expertise or understand the HACCP program enough to come up with an effective program.
- (1) No. Prior to this workshop I did not realize the complete format was pre-determined by FSIS. Industry only filled in the blanks in the forms.
- (1) No. It only pertained to a very limited product line. I would have rather seen a more general plan for all cooked sausages.

10. Did the individual sessions accomplish what you expected? Please explain.

Yes for All: 6/38%	Yes for Some: 9/57%	No for All: 1/6%
-----------------------	------------------------	---------------------

(10 comments)

- (5) Yes. The small group activity was more productive (time) than the large group. Participation of group members ensured all types of operations were represented in developing HACCP guidelines and requirements. Each session was a good mental exercise. Individual participants worked well together; all participated. Facilitators kept the group going in the right direction at a good pace. A HACCP model was established through the input of these individual sessions.
- (2) Yes for Some. In many of the discussions and decisions, there was a complete absence of any science being used. Hazard assessment has to be refined in order to be very useful but even this session has been interesting in terms of the interaction among the participants.
- (2) Yes for Some. Under the "definitions" of the workshop, as stated on Tuesday, some sessions approximated the desired or anticipated results. Identifying CCPs and assigning categories of CCPs went slowly at times. The sessions were generally good, however, Wednesday afternoon proceeded very slowly. I had expected the general sessions to brainstorm ideas for the small group sessions to discuss what would work and what should be eliminated.
- (1) Yes for Some. Observers should have a few minutes to comment after each major agenda item.

COMMENTS

- 11. Methods other than a workshop format could have been employed to develop a generic HACCP model. Examples of options include an FSIS request for (a) comments on an FSIS-generated model published in the Federal Register; (b) development of a model by selected academicians; or (c) submission to FSIS of independently-generated models. Please indicate your preference for one of the above-listed options, or describe any others not mentioned that you would like to be considered by FSIS in the future.

(17 comments)

Concerning use of a workshop format:

- (6) This workshop was very successful. The training/educational approach underlying this workshop should be thoroughly considered for future efforts. To incorporate a major change in industry regulations, workshops are the only method. All other methods do not allow industry to agree on formats. Submission of independently-generated models may work but doesn't allow industry the opportunity to discuss and arrive at a majority decision. This workshop format is excellent to rapidly come up with a model that would be accepted by at least the major stake holders in the industry. The open workshop format is not only the most efficient for all involved but also promotes positive feelings between the industry and government.

- (1) More small group activity prior to large group discussion.
- (1) Drop the current risk assessment since it plays no role without considering what you can do to control the process.

Concerning other options:

- (3) Other options include: (1) submitting the generic HACCP model to a much smaller group of industry experts (processors would still need to put together their own programs); (2) running a pilot in one of a few plants and circulating the proposed developed model to the rest of industry for comments; and (3) using academicians or independently-generated models (option b or c), adding input from HACCP experts, and finalizing the process with a Delphi technique to formulate a HACCP model.
- (2) C (independently-generated models submitted to FSIS) would be my preference on the above-listed options.
- (2) Of the three choices, I would reluctantly choose b and pray that a well-balanced group of academicians would approach the job in an unbiased manner. I like a mix of academicians and industry personnel to develop future models.
- (1) I would prefer an FSIS-generated model be published in the *Federal Register* for comments.
- (1) The *Federal Register* is a slow method and not everyone has access to it.

12. What was *most* beneficial to you about the workshop?

(19 comments)

- (8) Interaction with FSIS. Gaining an understanding of the "process" FSIS is using in developing HACCP. Ability to visit in a more social setting with FSIS members. Exchange of ideas and information with industry and FSIS. As an observer I gained the most from hearing the different methods of control that different plants implement. Opportunity for the industry to give input. The industry concerns and the way these were addressed by the facilitator and/or FSIS representatives.
- (4) The development of procedures to fill out the form "Industry Workshop HACCP Model." Procedures followed to develop a HACCP plan, rather than the finished product (the actual plan). The development of the flow chart and selecting CCPs.
- (3) Discussion groups were very good. Glad to see discussion by most of the participants.
- (3) The HACCP model. It will bring about some uniformity in the way industry will understand HACCP principles and will serve as a basis for consistent implementation at the plant level.
- (1) I liked getting all the handouts.



13. What was *least* beneficial to you about the workshop?

(13 comments)

- (4) The first morning. The laborious introductions were not needed. The introductory session was a bit too long and repetitive in some aspects. This session could be polished to save time for better use. Introduction concerning previous workshops and additional information not related to this workshop.
- (3) Listening to participants argue excessively over insignificant issues. This should have been halted before wasting valuable time. Perhaps FSIS needs to step in when participants have hashed an issue out long enough and the discussion is going nowhere.
- (2) Preconceived HACCP outline by FSIS personnel, particularly with raw materials at receiving. This is a make-work, "done deal" for industry.
- (2) Industry tendency to keep model very generic so that they will not be "nailed down" in future programs. The model could be more specific and therefore would be more useful. Determination of CCPs was reduced below a level where I feel comfortable that food safety would be guaranteed. Industry looked at CCPs from an economic viewpoint instead of a consumer-safety standpoint.
- (1) I would suggest the HACCP model has been overly considerate of the capabilities of the smaller processors thus limiting the effectiveness of the program. Micro and pathogenic monitoring is needed. The model needs a lot of work to make it effective to assure safe product. Small processors possibly should not be in business if they cannot afford verification steps to produce safe product.
- (1) The procedure to develop Hazards A - F Categories I-VI is a waste of time and confusing, however, these same worthwhile principles are described clearly in the FSIS report *HACCP Principles for Food Production*.

14. Please use the rest of this page to make any additional comments that may help us understand your thoughts about the workshop and improve future activities.

(22 comments)

Workshop-related:

- (7) The workshop was prepared and managed in a very professional way. Time management was a key element considering the amount of work the participants had to complete. The group dynamic was excellent. Participation was well balanced among industry participants. The workshop was very positive. Thank you so much for allowing us the chance to observe and learn from these workshops. The information and experience we gathered is invaluable. Generally speaking, these sessions are profitable due to the exchange of information, data and ideas. It was very well-planned! I applaud the hotel selection!
- (4) In the future communicate sufficiently to make sure industry sends the individuals with sufficient expertise to make solid contributions. Participants often could not distinguish between a control point (product quality/market driven characteristic) and a critical control point (product safety). Who selected the participants? This model may be classified as "modified PBIS" but it surely isn't HACCP by any stretch of the imagination. Apparently, there is a misunderstanding, or lack of knowledge, as to the difference between a control point and a critical control point. The participants identified control points mostly but are out of touch with CCPs.



- (2) The makeup of the group does not represent the industry so you may have been preaching to the choir. I recommend that you refrain from developing regulations based on this workshop. Need to encourage "more representation of smaller plants. They sure need to be at these workshops." More sites for these workshops might facilitate more plants being represented.
- (2) I do not understand the use of "consensus" when one side won an election over the other side with a vote of 18 to 16. A definition for the term "consensus" should be agreed upon before any voting takes place.
- (1) The workshop provided a great mental exercise. Although most of the participants were already very knowledgeable, they probably did get a good understanding of how different people view process control and therefore, how difficult it is for FSIS to standardize inspection procedures.
- (1) I was very disappointed that the workshop was structured to prohibit any participation from observers. There was expertise in the observers' group that could have added input and clarified some of the discussion.
- (1) Steering committee membership should have been based on expertise instead of availability. Some of the committee members did not demonstrate their expertise sufficiently.
- (1) Although the hazard analysis risk assessment was not integrated into the model, it was beneficial in bringing out important points.
- (1) The regional coordinators were most helpful. They gave a hands-on approach to HACCP in response to my many questions!

HACCP-related:

- (1) From a public relations standpoint we should change the name and eliminate the word "hazards."
- (1) Explain FSIS's views on how the small plants will implement a HACCP program. They see it as being too expensive. They have no QC program or lab for testing. All plants are different. How do you implement a uniform HACCP program to both large and small plants? Not everyone is on the same level playing field.

15. Considering the agenda for the *first morning* of the workshop, should any of the introductory activities or presentations be expanded, shortened, or modified as to content, to better meet your needs? Please explain.

(18 comments)

- (11) Most of the first morning's agenda could be shortened/streamlined without losing any value or content. The laborious introductions were not needed. This time could be used for better explaining the workshop agenda. The program was too repetitious and moved too slowly. FSIS leaders should have kept the discussions moving faster. Omit the history concerning previous workshops. Much of that information was in the workshop packet. Maybe there was too much emphasis in explaining the mechanics of the workshop. The HACCP overview was a little bit "rushed." More time could be used to explain the HACCP model, CPs, CCPs, monitoring, etc.

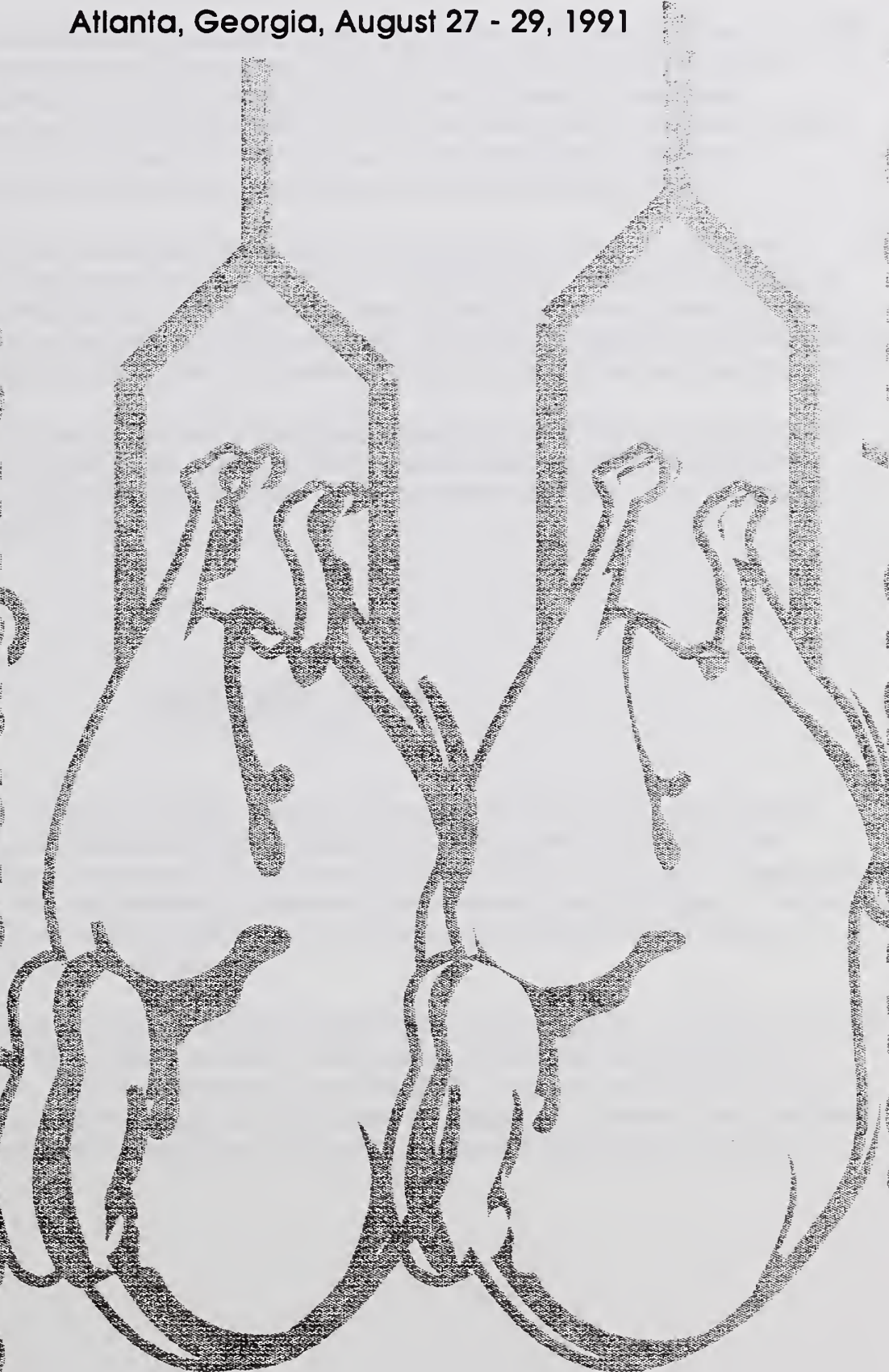
- (4) The length of the presentation is just right. The current agenda is acceptable. New participants and observers need this introduction although it's a little tedious for those who have attended prior meetings. The introductory activities are important in the explanation of HACCP and its importance in an inspection method. The only thing I would suggest is perhaps fitting in a brief summary of the 2-year study FSIS has undertaken— how they started, what they've done, where they're going, etc. I don't think everyone appreciates just how much time, work, and effort has gone into this. Not only would this allow the FSIS folks to "brag" a little (as well they should!) but by increasing industry's awareness of all that has gone into the study, perhaps the participants would be a little more appreciative and take the workshops more seriously.
- (2) It was obvious that some participants had not read the background document provided to them prior to the meeting. For example, the group should have had more knowledge of HACCP before the workshop since much of the discussion was related to misunderstandings about CCPs & CPs. For future workshops, individuals not on the expected wavelength should be encouraged (politely) to read the workshop materials the first night of the session in order to fully benefit from the exercise. The time saved could be allocated to the model development.
- (1) I liked the self-introductions by Participants and Observers.



# Summary of the Evaluation Results of the Workshop for HACCP Model Development

Atlanta, Georgia, August 27 - 29, 1991

Poultry Slaughter



Poultry Slaughter





## INTRODUCTION

This report presents the evaluation results from the Food Safety and Inspection Service (FSIS) of the United States Department of Agriculture (USDA) workshop to develop a generic model for a hazard analysis and critical point (HACCP) plan for poultry slaughter. Representatives from industry, trade associations and government met in Atlanta, Georgia, August 27 - 29, 1991, for this workshop which focused on young chicken slaughter. The workshop was open to the public for observation, on a reserved space basis.

Participants and Observers were asked to complete a questionnaire which asked them questions related to the design and operation of the workshop, the workshop materials, the process employed in developing a generic HACCP model, and their views concerning the workshop approach and any suggested improvements. Of the 43 Participants and 54 Observers in attendance, 41 Participants (95%) and 29 Observers (54%) responded to the questionnaire.

This evaluation activity is one in a series of on-going evaluation tasks that are a part of the HACCP Implementation Study. The results of this evaluation should serve to help plan subsequent workshops and to provide background information to aid in future planning decisions related to HACCP.

## REPORT PLAN

This report is organized into two sections. Section I presents the results and summary of Participants' responses and Section II presents those for the Observers. Results of the multiple-choice questions are presented in a format based on that of the original questionnaire. The responses are reported by number and percent of responses for each category. Percentages reported are based on the number of responses to each question and do not always total 100 percent due to arithmetic rounding.

Results of the open-ended questions are also summarized in each Section. A content analysis was performed for all hand-written comments. Respondents' remarks are paraphrased and grouped by question. Some respondents made multiple comments while others made none, thus the number of comments per question does not equal the number of respondents. The number of respondents who concurred with each comment is listed parenthetically.





**SECTION I— PARTICIPANTS**

**SUMMARY OF PARTICIPANTS' RESPONSES TO  
EVALUATION QUESTIONNAIRE**



## SUMMARY OF PARTICIPANTS' RESPONSES

### RESPONDENT CHARACTERISTICS

1. Which grouping below best characterizes your current affiliation?

Meat & Poultry Industry: 38/93%

Education Institution: 2/5%

Trade Association: 1/2%

2. If you marked "Meat & Poultry Industry" in Question 1, please indicate all groupings below which best characterize your industry type and the total production volume of your establishment(s). [Low Volume Establishment = 1 - 59,999 lbs. produced /Quarter; Medium Volume Establishment = 60,000 - 1,000,000 lbs. produced /Quarter; High Volume Establishment = more than 1,000,001 lbs. produced /Quarter]

Meat & Poultry Industry

Low Volume Establishment(s): 0/0%  
Medium Volume Establishment(s): 7/18%  
High Volume Establishment(s): 0/0%  
Unspecified Volume: 6/16%

Poultry Industry

Low Volume Establishment(s): 0/0%  
Medium Volume Establishment(s): 3/8%  
High Volume Establishment(s): 20/53%  
Unspecified Volume: 2/5%

3. Days attended (mark all that apply): 1 Day: 3/7% 2 Days: 1/3% 3 Days: 37/90%

4. Please check one: Observer: 0 Participant: 41

### HACCP MODEL DEVELOPMENT

- |   | <u>Very Successful</u> | <u>Successful</u> | <u>Somewhat Successful</u> | <u>Not Successful</u> | <u>Very Unsuccessful</u> | <u>Don't Know</u> |
|---|------------------------|-------------------|----------------------------|-----------------------|--------------------------|-------------------|
| 5. Overall, how successful was the workshop in:             |                        |                   |                            |                       |                          |                   |
| a. Identifying Critical Control Points (CCPs)?              | 1/2%                   | 16/39%            | 20/49%                     | 1/3%                  | 3/7%                     | 0/0%              |
| b. Determining critical limits for each CCP?                | 1/2%                   | 22/54%            | 11/27%                     | 4/10%                 | 3/7%                     | 0/0%              |
| c. Developing monitoring plan activity for identified CCPs? | 2/5%                   | 20/50%            | 15/38%                     | 1/2%                  | 2/5%                     | 0/0%              |
| d. Developing corrective action approaches?                 | 2/5%                   | 19/48%            | 14/35%                     | 3/8%                  | 2/5%                     | 0/0%              |
| e. Developing record-keeping systems?                       | 5/13%                  | 20/50%            | 11/28%                     | 3/8%                  | 1/3%                     | 0/0%              |
| f. Developing verification procedures?                      | 3/9%                   | 18/55%            | 8/24%                      | 3/9%                  | 1/3%                     | 0/0%              |
| g. Developing a generic HACCP model?                        | 3/8%                   | 15/40%            | 15/40%                     | 3/8%                  | 2/5%                     | 0/0%              |

NOTE: Results are presented as number of responses/% of responses for each category.



# DESIGN AND OPERATION OF WORKSHOP

	<u>More than Adequate</u>	<u>Adequate</u>	<u>Marginally Adequate</u>	<u>Inadequate</u>	<u>Very Inadequate</u>	<u>Don't Know</u>
6. Please rate the workshop in terms of:						
a. Development of a generic product/process description	2/5%	24/59%	10/24%	2/5%	3/7%	0/0%
b. Development of process flow diagram	9/22%	27/66%	2/5%	2/5%	1/2%	0/0%
c. Organization of the three days	13/32%	20/49%	7/17%	0/0%	1/2%	0/0%
d. Use of small "break-out" groups	13/32%	25/61%	1/2%	1/2%	1/2%	0/0%
e. Reporting of small "break-out" group activities to entire group	11/27%	27/66%	2/5%	0/0%	1/2%	0/0%
f. Opportunity for input from Observers	4/10%	20/49%	4/10%	8/20%	3/7%	2/5%
g. Opportunity for input from Participants	20/49%	17/42%	3/7%	1/2%	0/0%	0/0%
h. Effectiveness of facilitators in helping achieve workshop objectives	9/23%	21/53%	5/13%	4/10%	1/3%	0/0%
i. Effectiveness of subject matter experts in helping achieve workshop objectives	5/12%	20/49%	9/22%	4/10%	3/7%	0/0%
j. Effectiveness of group leaders in helping achieve workshop objectives	8/20%	30/73%	1/2%	1/2%	1/2%	0/0%
k. Effectiveness of group reporters in helping achieve workshop objectives	12/29%	25/61%	4/10%	0/0%	0/0%	0/0%
l. Completion of workshop objectives.	3/8%	24/62%	8/21%	2/5%	2/5%	0/0%
	<u>Strongly Agree</u>	<u>Agree</u>	<u>Neutral</u>	<u>Disagree</u>	<u>Strongly Disagree</u>	<u>Don't Know</u>
7. Please indicate your degree of agreement with each of the following statements.						
a. The HACCP model developed by the workshop participants is a viable framework for the industry to implement on a test basis.	3/8%	22/53%	10/25%	2/5%	3/8%	0/0%
b. The workshop format offers a sound approach for producing a generic HACCP model for other meat and poultry products.	3/8%	24/60%	7/18%	4/10%	2/5%	0/0%
c. The presence of Observers was beneficial to the workshop.	2/5%	13/32%	15/37%	7/17%	1/2%	3/7%
d. The workshop resulted in a useful generic HACCP model developed by industry participants.	3/8%	19/48%	11/28%	4/10%	3/8%	0/0%

**WORKSHOP MATERIALS** (Observers: Please skip Question 8 and continue with Question 9.)

	<u>Very Useful</u>	<u>Useful</u>	<u>Somewhat Useful</u>	<u>Not Useful</u>	<u>Not At All Useful</u>
8. Overall, how useful were the written materials for:					
a. Assessing finished product hazards?	5/13%	20/50%	11/28%	3/8%	1/3%
b. Assessing ingredient hazards?	4/11%	15/41%	11/30%	6/16%	1/3%
c. Determining placement of CCPs on flow diagram?	4/10%	26/65%	7/18%	3/8%	0/0%
d. Determining critical limits for each CCP?	5/12%	22/54%	10/24%	4/10%	0/0%
e. Developing assigned CCP monitoring plan?	5/13%	22/55%	11/28%	2/5%	0/0%
f. Developing corrective action approaches?	4/10%	23/58%	10/25%	3/8%	0/0%
g. Developing record-keeping systems?	4/10%	22/55%	9/23%	5/13%	0/0%
h. Developing verification procedures?	3/8%	21/58%	9/25%	3/8%	0/0%
i. Developing a generic HACCP model?	6/15%	24/60%	7/18%	3/8%	0/0%

**WORKSHOP EXPECTATIONS**

9. Did the workshop accomplish what you expected?      Yes: 28/72%      No: 11/28%  
Please explain.

(23 comments)

- (4) Yes. A generic model was developed with some reserve on the part of industry. The best plan eventually was developed, however it seemed at times some individuals were interested in protecting their own interests. The diversity of the group provided some varying view points and some hidden agendas. The workshop moved slowly at times but overall the objectives of the agenda were accomplished.
- (4) No. Participants did not understand HACCP or its principles and definitions. Also tried to ignore hot items. We did not address the hard problems. CCPs were very watered down. The model was too generic and non-specific.
- (4) No. Too many people with too many opinions with too little focus. I did not expect a finished or even a generic model from this large a working group. There were too many different points of reference going into the workshop.
- (3) No. A tremendous opportunity was wasted. The USDA seemed to have a plan in mind which they tried to impose on industry. When Control Points were mentioned by several industrial participants they were ignored by USDA representatives. Questions were asked to clarify and help bring all participants to the same level but they went unanswered. For example, it is absolutely essential to finally define a CCP— do we hold product when it is out-of-limits? Once these issues were ignored the rest of the workshop went downhill.



- (2) Yes. The foundation for a generic plan was developed. The workshop was effective in reaching a consensus behind which industry, government and consumers can work together toward a common food safety goal.
- (2) Yes. Excellent information exchange. Good discussion, consensus and final decisions.
- (2) Yes. However, I'm not sure HACCP will protect the consumer any more than we are already doing. I felt as if we did nothing more than rewrite and combine such established programs as NELS and TQC. We may have gone overboard on CCP selection.
- (2) No. The resulting HACCP model has too many CCPs. It will be unmanageable. The amount of documentation required is overwhelming for most operations. I assumed the workshop would develop a workable HACCP program.

10. Did the individual sessions accomplish what you expected? Please explain.

Yes for	Yes for	No for
All: 17/43%	Some: 22/55%	All: 1/3%

(18 comments)

- (4) Yes. Very useful, good idea. The workshop gives everyone an opportunity to discuss in a non-argumental situation. Good place to work and get to know the group. Good open discussion and knowledge exchange.
- (3) Yes for Some. Marginally. Many people apparently were exposed to HACCP for the first time and were poorly prepared. Some sessions were a waste of time (especially early on).
- (3) Some. Questions concerning the importance of the CCPs voted by the group were raised. This helped simplify the original plan. Perhaps some issues have become too generic. Chemical CCP was not addressed properly.
- (2) Some. Presentations were excellent. As an introduction to HACCP the session was good, but the overall result of the workshop is too complex to be workable.
- (2) Some. Several of the mediators did not do a good job in controlling the sessions. Information could have gone further in clearly establishing the objective(s) for the moment and clearly establishing limits or absence thereof.
- (2) Some. Consensus was hard to achieve. Our breakout group was somewhat biased toward using government regulations as a reference. It seemed as if the company (industry) could not make a decision.
- (1) Yes. However, USDA intervention was greater than necessary and at times impeded progress.
- (1) No. Small group sessions did not allow retracing of steps; also, because these groups were assigned certain CCPs to work on, the overall efficacy of participant input was severely diminished. For example, if I had something to say about scalding but my particular small group was not addressing this CCP, I could not give input on this matter except in the large group which was somewhat intimidating to free exchange.



## COMMENTS

11. Methods other than a workshop format could have been employed to develop a generic HACCP model. Examples of options include an FSIS request for (a) comments on an FSIS-generated model published in the *Federal Register*; (b) development of a model by selected academicians; or (c) submission to FSIS of independently-generated models. Please indicate your preference for one of the above-listed options, or describe any others not mentioned that you would like to be considered by FSIS in the future.

(33 comments)

### Concerning use of a workshop format:

- (10) Stay with present format. No other method should be employed. The workshop was the best approach—others mentioned are unacceptable. This open forum was useful and educational to many of the participants. The workshop was most efficient for agreement. Cooperation of industry and USDA is the preferable format. Workshops are better than any of the above due to the fact that the people who are going to use the program actually help set it up.
- (3) I believe the best way is for a small group at a workshop (less than 20 people) to review HACCP programs independently generated that have already been implemented successfully. Workshop format is best; additional independently-generated models to use for reference may have been useful. Have a Steering Committee develop a model then present it at a workshop for completion.
- (1) This workshop had too many people to come to a consensus; that is why there are so many CCPs.
- (1) The format we had was a good one; however, the actual handling suffered. Outsiders—turkey processors, FSIS officials, and academicians—should not have been allowed as participants.

### Concerning other options:

- (7) Option (C), submission to FSIS of independently-generated models. Submission of models from independent groups that have experience with the poultry industry.
- (3) Develop model with joint National Broiler Council (NBC), National Turkey Federation (NTF), and USDA representatives. Send out questionnaires and let NTF and NBC representatives develop model. Submission to FSIS of models generated independently through a national trade organization.
- (3) I do not feel that anyone, other than industry professionals, should put programs together to control or regulate the industry. The HACCP program needs to be developed by industry people. These representatives should have knowledge about HACCP. Input from industry is the most logical way to go.
- (3) Option (A) is the best option as it will lend itself to the broadest array of comments and input ideas.
- (1) Combination of options (A) and (C), *i.e.*, submission to FSIS of independently-generated models combined with an FSIS-generated model to use as a starting point.
- (1) I think a more effective long-term and logical sequence would have been to preliminarily accept a model by industry; test it; then bring it back to develop the hard rule. With the current sequence—of the model escaping us without a review of the results—industry is faced too harshly with the possibility of losing input into the final model.



12. What was *most* beneficial to you about the workshop?

(35 comments)

- (18) Chance to discuss and generate various options. Meeting and talking with fellow members of the workshop. Other processors' views. Open discussion. Getting a feel for general opinion of industry towards HACCP. Working with peers. Understanding others' operations. Great to see people interested in implementing HACCP. Dialogue. There was a great diversity of ideas though most of this was based on interpretative differences. The group as a whole appeared very interested in food safety. This workshop provided me a view of what the rest of the industry is doing and the direction of HACCP. Chance to interface with others and hear how they are approaching this matter. Good interaction with other companies. Interfacing with other industry personnel. Interaction with regulatory and industry management to review current events and future developments. I enjoyed meeting the experts of chicken processing. Meeting key personnel for future questions. Group participation and interaction. Open forum.
- (7) Small group activities. Break-out groups. We made more progress in small groups than we did in the general session. In breakout groups we were able to discuss issues, get a greater degree of clarification where needed, and network with other industry personnel.
- (6) Working through the model. The explanation of HACCP and the process of developing the HACCP model. It was a great learning experience that will be most useful in developing a HACCP plan. I learned a lot about total industry needs and concerns. The workshop experience widened my perspective.
- (2) All time was efficiently used. Enjoyed the entire session!
- (1) The computer system worked very well.
- (1) The workbook materials.

13. What was *least* beneficial to you about the workshop?

(27 comments)

- (4) We were bogged down in differences in semantics. People who were involved in earlier workshops tended to take over the workshop. Too much argument and debate over details in the HACCP program. Extended discussion on some topics. Wrangling over trivial issues that were no more than wording issues.
- (4) The first day—especially the morning. The first day's agenda could have been shortened to allow more time to develop the CCP categories, then Corrective Actions and CCP Descriptions could have been better developed.
- (3) I wonder why we need Subject Matter Experts (USDA)—the room was filled with Subject Matter Experts (Industry). A few SMEs were a little too active at a few times. USDA's intervention in small group breakouts was least beneficial.
- (3) I disagreed with the voting procedures. Inconsistency in the process. Please note that consensus was seldom reached—majority rule was utilized.
- (2) History of poultry slaughter. History of inspection, however presentation was excellent.



- (2) Going through the National Academy Plan and the first day's agenda regarding examples of other models, etc. It was a total waste of time reviewing the National Advisory Committee's HACCP Plan.
  - (2) The model presented. The HACCP document generated.
    - (1) Excessive pressure to implement a program which significantly relied upon microbiological testing and reporting. This pressure is strictly a result of political efforts to reduce media criticism.
    - (1) The FSIS' inflexibility— all along, we were told that we could revisit something later. And then, when asked, we were told we had to move forward. Ideas must be revisited.
    - (1) Principle #1.
      - (1) Having turkeys and broilers mixed.
      - (1) Lack of scientific input.
      - (1) Small working groups.
      - (1) Large group meetings.
14. Considering the agenda for the *first morning* of the workshop, should any of the introductory activities or presentations be expanded, shortened, or modified as to content, to better meet your needs? Please explain.
- (28 comments)
- (11) Shorten or eliminate the first morning's agenda. Most of the items were a waste of time. Need to eliminate about half of first day and get into the development of the program. Shorten the time spent on definitions and objectives. Shorten somewhat but not really necessary. It was nice but a very costly use of time. The half day spent on historical review and other topics was redundant and not germane to the workshop objectives. Too many speeches. Let's get political speeches out of the way. I've heard the same praises of HACCP several times before. Most attendees would already know the basics of HACCP and why they are here.
  - (9) Excellent as is. Good job. No changes.
  - (4) We spent too much time explaining who people were and what we were to do. Needed more small breakout group time. This is a big job. Time is critical in doing justice to the core goal of generating the breakout items for CCPs. Shorten the first morning's sessions to provide more time to spend on development of the HACCP program.
  - (2) The first hour should be a review of HACCP principles, using the NRC-MCF (National Research Council - Microbiological Criteria for Food and Food Ingredients) document. Basis of a HACCP Program should have been explained, i.e., CCPs, Hazard Analysis.
  - (2) Decrease introduction period for individuals and increase introduction period for printed materials. Much of the data and background materials were new to us and more time for their presentation would have been helpful. If not possible, send out these documents prior to the workshop.



15. Please use the rest of this page to make any additional comments that may help us understand your thoughts about the workshop and improve future activities.

(29 comments)

Workshop-related:

- (5) Very impressed by the efforts put forth by USDA to conduct this workshop. Keep up the excellent work! One of the finest most educational and professionally conducted workshops ever. Thanks to the whole team. Timelines and professional approach to the whole process by USDA was excellent. This process should be supported by follow through to ensure that pilot plant studies are conducted. No "political footballing" with this program. The USDA is to be commended for this effort! Don't let this bog down in the system.
- (4) Stronger focus needs to be exercised by facilitators. Changing the definition of a hazard was very confusing. USDA continues to ignore Control Points as extremely useful tools. Not every Control Point is a Critical Control Point. Also, many people became very concerned with the concept of a point when discussing CCPs. My impression is that a CCP can control a system. During this conference the definition of Critical Control Point was changed. Now no one is sure what is a Critical Control Point. As the program is written many of the Critical Control Points should be Control Points.
- (4) This was supposed to be an industry program. When USDA participants were allowed to vote this precept was lost. The packaging CCP on room temp. was greatly swayed by USDA votes. The USDA involvement in this program should be decreased, *i.e.*, no voting in large group discussions. During the last session USDA took an unwarranted and unwanted position of intervening into both breakout group and general group sessions. One of the facilitators imparted personal opinions too much on the group and proceeded more on personal judgement rather than according to group consensus.
- (3) There was much confusion over how set in stone this model is; made people unwilling to put in unproven ideas for fear that it would become mandated. Should have been clearly stated that this ultimately will be mandated. Therefore, we should be very careful not to include suggested methods, *etc.* that will not be productive in efficiently achieving goal. Implementation is the key. A better vision of how implementation will work in terms of making a flexible, effective program should be addressed at the beginning of the conference. This partial omission restricted the commitment level of interested participants.
- (2) I'm still not certain that the turkey industry shouldn't be in a separate workshop. Why were turkey processors included as participants? They should be observers. Turkey should be separate from chicken.
- (1) Include float time in the schedule, *i.e.*, schedule for Friday 8 - 12 and use if necessary.
- (1) The documents used to develop product category were from previous workshops and were not appropriate. Documents should be reviewed for appropriateness prior to each workshop. The group had no leeway in deviating from the NAC-MCF document; it is not perfect and future workshops should allow for criticism of any documents used.
- (1) I think the entire program, CCP identification through verification, would have been put together better if done in small groups from the outset.

HACCP-related:

- (2) The industry should not and USDA should not consider themselves guilty of providing unsafe food products to the consuming public. Both should be more aggressive in alerting consumers of advances made in the last 10, 20, 30 or more years and how to properly prepare food. Industry and regulatory officials should work together, however, I believe that we have not attacked the real problem. Look at the record: the overwhelming majority of food illnesses are caused by factors out of industry's control. And yet, government chose to attack the lesser cause. Resources should be devoted to education, not increased regulation.

Other ideas:

- (2) The Puerto Rico study results would have provided extremely valuable information for accessing and confirming CCPs. Information on new technologies was left out. USDA/FSIS has done a study in Puerto Rico but seemed more interested in refereed publications than promptly presenting this vital material at a critical seminar where these new technologies could be used.
- (1) Future workshops should try to attract company personnel who will actually be implementing the proposed plan.
- (1) Highlight: The quick availability of hard copies was outstanding; the best I have experienced.
- (1) Not enough table room in general session.
- (1) It has been very interesting. I hope my contributions were of help. I look forward to the development of this as a means of self-improvement for our industry.





**SECTION II— OBSERVERS**

**SUMMARY OF OBSERVERS' RESPONSES TO  
EVALUATION QUESTIONNAIRE**



## SUMMARY OF OBSERVERS' RESPONSES

### RESPONDENT CHARACTERISTICS

1. Which grouping below best characterizes your current affiliation?

Meat & Poultry Industry:	21/72%	Other Federal Government:	1/3%
Trade Association:	1/3%	Other Government:	1/3%
Educational Institution:	1/3%	Other:	3/10%
News Media:	1/3%		

2. If you marked "Meat & Poultry Industry" in Question 1, please indicate all groupings below which best characterize your industry type and the total production volume of your establishment(s). [Low Volume Establishment = 1 - 59,999 lbs. produced / Quarter; Medium Volume Establishment = 60,000 - 1,000,000 lbs. produced / Quarter; High Volume Establishment = more than 1,000,001 lbs. produced / Quarter]

Meat & Poultry Industry	Low Volume Establishment(s):	0/0%
	Medium Volume Establishment(s):	0/0%
	High Volume Establishment(s):	7/35%
	Unspecified Volume:	3/15%
Poultry Industry	Low Volume Establishment(s):	0/0%
	Medium Volume Establishment(s):	0/0%
	High Volume Establishment(s):	10/50%

3. Days attended (mark all that apply):      1 Day: 0/0%      2 Days: 1/3%      3 Days: 28/97%

4. Please check one:      Observer: 29      Participant: 0

### HACCP MODEL DEVELOPMENT

	<u>Very</u> <u>Successful</u>	<u>Successful</u>	<u>Somewhat</u> <u>Successful</u>	<u>Not</u> <u>Successful</u>	<u>Very</u> <u>Unsuccessful</u>	<u>Don't</u> <u>Know</u>
5. Overall, how successful was the workshop in:						
a. Identifying Critical Control Points (CCPs)?	1/3%	7/24%	17/59%	1/3%	3/10%	0/0%
b. Determining critical limits for each CCP?	0/0%	5/18%	18/64%	4/14%	0/0%	1/4%
c. Developing monitoring plan activity for identified CCPs?	0/0%	7/26%	17/63%	2/7%	0/0%	1/4%
d. Developing corrective action approaches?	0/0%	9/33%	13/48%	3/11%	0/0%	2/7%
e. Developing record-keeping systems?	0/0%	8/32%	12/48%	3/12%	0/0%	2/8%
f. Developing verification procedures?	0/0%	8/32%	13/52%	2/8%	0/0%	2/8%
g. Developing a generic HACCP model?	0/0%	8/31%	15/58%	1/4%	1/4%	1/4%

NOTE: Results are presented as number of responses/% of responses for each category.



# DESIGN AND OPERATION OF WORKSHOP

	<u>More than Adequate</u>	<u>Adequate</u>	<u>Marginally Adequate</u>	<u>Inadequate</u>	<u>Very Inadequate</u>	<u>Don't Know</u>
6. Please rate the workshop in terms of:						
a. Development of a generic product/process description	1/3%	19/66%	8/28%	1/3%	0/0%	0/0%
b. Development of process flow diagram	3/10%	23/79%	2/7%	1/3%	0/0%	0/0%
c. Organization of the three days	5/17%	19/66%	3/10%	2/7%	0/0%	0/0%
d. Use of small "break-out" groups	5/18%	16/57%	4/14%	1/4%	0/0%	2/7%
e. Reporting of small "break-out" group activities to entire group	2/7%	20/71%	4/14%	1/4%	0/0%	1/4%
f. Opportunity for input from Observers	0/0%	10/35%	7/24%	8/28%	4/14%	0/0%
g. Opportunity for input from Participants	9/31%	16/55%	3/10%	0/0%	1/3%	0/0%
h. Effectiveness of facilitators in helping achieve workshop objectives	3/10%	17/59%	5/17%	0/0%	3/10%	1/3%
i. Effectiveness of subject matter experts in helping achieve workshop objectives	1/3%	13/45%	5/17%	7/24%	2/7%	1/3%
j. Effectiveness of group leaders in helping achieve workshop objectives	0/0%	20/71%	5/18%	0/0%	1/4%	2/7%
k. Effectiveness of group reporters in helping achieve workshop objectives	0/0%	21/75%	4/14%	0/0%	0/0%	3/11%
l. Completion of workshop objectives.	0/0%	12/41%	12/41%	3/10%	0/0%	2/7%
	<u>Strongly Agree</u>	<u>Agree</u>	<u>Neutral</u>	<u>Disagree</u>	<u>Strongly Disagree</u>	<u>Don't Know</u>
7. Please indicate your degree of agreement with each of the following statements.						
a. The HACCP model developed by the workshop participants is a viable framework for the industry to implement on a test basis.	0/0%	9/32%	8/29%	9/32%	1/4%	1/4%
b. The workshop format offers a sound approach for producing a generic HACCP model for other meat and poultry products.	1/4%	14/50%	6/21%	5/18%	1/4%	1/4%
c. The presence of Observers was beneficial to the workshop.	2/7%	19/66%	6/21%	2/7%	0/0%	0/0%
d. The workshop resulted in a useful generic HACCP model developed by industry participants.	0/0%	8/28%	8/28%	9/31%	2/7%	2/7%

WORKSHOP MATERIALS (Observers: Please skip Question 8 and continue with Question 9.)

Very  
Useful

Useful

Somewhat  
Useful

Not  
Useful

Not At All  
Useful

8. Overall, how useful were the written materials for:

- a. Assessing finished product hazards?
- b. Assessing ingredient hazards?
- c. Determining placement of CCPs on flow diagram?
- d. Determining critical limits for each CCP?
- e. Developing assigned CCP monitoring plan?
- f. Developing corrective action approaches?
- g. Developing record-keeping systems?
- h. Developing verification procedures?
- i. Developing a generic HACCP model?

OBSERVERS WERE INSTRUCTED TO  
SKIP THIS QUESTION.

WORKSHOP EXPECTATIONS

9. Did the workshop accomplish what you expected?  
Please explain.

Yes: 17/65%

No: 9/35%

(20 comments)

- (5) Yes. The workshop was different from what I expected but I was pleased with the workshop and its objectives once I found out what they were. I am not sure a solid HACCP program could be developed in only 3 days but I believe enough was done to form a foundation. The workshop was very useful for training individuals about how to develop a HACCP plan. The group basically headed in the right direction and accomplished about as much as possible for a large group in a very short period of time. I found the process of designing the generic model very helpful as well as the discussion surrounding it. It identified problem areas, established type exposure, and set-up monitoring procedures.
- (3) No. The plan developed is more of a quick fix for known weaknesses of the slaughter procedures than a plan of preventive measures ensuring a wholesome product. Many potential hazards were not considered or were voted out of the plan based on the feelings of the participants and not on hard data. The purpose of this workshop was to develop a generic plan that could then be tested in a pilot program to determine the efficacy of the plan. If potential hazards are eliminated prior to this test program, then we can't be sure that the HACCP plan is truly effective. Not enough facts presented or pressed for on microbe counts, results of testing. Everything was done by voting based on opinion.
- (2) Yes. I expected many CCPs and that's what happened. Concept of Control Points (CP) rather than CCPs needs to be seriously considered. Sixteen different CCPs is unworkable from documentation required standpoint and plant implementation, monitoring, verification, etc. Definition of a CCP needs to be changed/modified to establish what is truly a health hazard or risk. Basically, needed more hands-on type of people and fewer desk jockeys as participants. Some of these people wanted to craft the plan in confusing language and would probably argue over the definition of *a*, *an*, or *the*.
- (2) Yes. I received adequate information to discuss the objectives of HACCP. I learned a lot about the industry.



- (2) No. Too many of the monitoring steps are USDA regulations. What did we accomplish? Issues are still unclear. Most issues addressed are covered within the NELS system now.
- (2) No. The basic concept of HACCP was not followed in any phase of the workshop. Would suggest that all people involved be required to attend a HACCP school prior to developing any model. HACCP has to be a manageable program. It is not effective otherwise. When there are more CCPs than CPs it becomes too complicated to manage effectively. The workshop lost sight of what HACCP really is.
- (1) Yes. My expectations were low.
- (1) Yes. The use of small group discussions was especially beneficial. Use small groups more to develop and bring items up for discussion. As the workshop progressed, I think more and more people realized what a CCP was and saw how it was defined and realized the implication of CCPs. This then allowed industry representatives to begin to eliminate CCPs that could not be controlled (personal hygiene, etc.).
- (1) No. Although such a workshop is a fair method to represent industry, there were too many expert participants. In the best interests of time management, perhaps the selection of participants could come from Area workshops held in preparation for a national workshop.
- (1) No. I expected more input from FSIS as to what would be required of plants. Their judgement will be the final decision.

10. Did the individual sessions accomplish what you expected? Please explain.

Yes for All: 6/24%	Yes for Some: 17/68%	No for All: 2/8%
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(12 comments)

- (2) Some. The small breakout groups allowed for an easier exchange of ideas. Smaller groups were efficient, however, the principle of HACCP was not followed.
- (2) Some. I cannot comment on the breakouts because I did not attend these sessions, but the general session helped me understand HACCP and plan development. Some sessions were not as smoothly organized as they could have been. More clearly explained details of what should be accomplished in each session would be beneficial, but overall, good organization for a difficult task.
- (1) Yes. I did expect more input from participants who did not voice their opinions or ideas in the large groups. More insight and ideas were therefore examined in the small group sessions.
- (1) Yes. The brainstorming was interesting and so was seeing it all narrowed down to one statement.
- (1) Some. It appeared that the group kept wandering outside the scope of the agenda to develop a HACCP program. Group was "hung up" on the exception rather than the general rule. Perhaps the definitions of the items in question should be shown on-screen to help keep people from straying outside the scope (i.e., hazards, CCPs, etc.). Definitions including the terms *likely to exist* and *does not exist* possibly would be more applicable if the wording were changed to *may exist but not likely*.
- (1) Some. It was difficult in the beginning as an observer to follow along because printed materials were not made available. This situation improved as notebooks and printed materials were provided to observers.
- (1) Some. Learned from conversations at breaks, lunches, etc.



- (1) Some. The initial sessions did not sufficiently define the degree of potential hazards that should be considered. Hard data are needed to judge whether or not a potential hazard is important. Hazard potential cannot be decided by gut feel or memory; get the facts before eliminating a hazard from the HACCP, otherwise err on the side of safety.
- (1) No. I expected observers to receive more materials to help us follow proceedings.
- (1) No. The workshop objectives could have been developed by the group as a whole rather than using the small breakout group format.

#### COMMENTS

11. Methods other than a workshop format could have been employed to develop a generic HACCP model. Examples of options include an FSIS request for (a) comments on an FSIS-generated model published in the Federal Register; (b) development of a model by selected academicians; or (c) submission to FSIS of independently-generated models. Please indicate your preference for one of the above-listed options, or describe any others not mentioned that you would like to be considered by FSIS in the future.

(24 comments)

#### Concerning use of a workshop format:

- (6) Workshop is the best method. At least people talk to each other. Good workshop. The workshop format is effective.
- (1) This method with industry participants is probably the best method to develop a working model. However, need to realize that not everything is a CCP— there must be control points that are controlled by industry. Successful HACCP programs combine CCPs and CPs. Successful HACCP programs are normally limited to approximately 5 CCPs, otherwise there is no control since the program is too cumbersome and works against itself.
- (1) I would like to see another Poultry Slaughter workshop completed with USDA inspectors and circuit supervisors. Even though some circuit supervisors were present here, they were overruled by industry representatives. It is understandable that the inspectors and industry representatives would not be able to achieve the workshop objectives in the same workshop; separate workshops would produce model plans from both sides.
- (1) I do not believe a viable working plan can ever be developed by not including those who must implement the plan and those who must administer. A joint effort such as this workshop will be the best activity.
- (1) The workshop format worked very well. Additional selected academicians could have offered a more neutral forum instead of allowing multiple representatives from one company to attend. Multiple representatives from one company gives unfair voting rights to those companies.

#### Concerning other options:

- (5) Option (C), submission to FSIS of independently-generated models, is the best approach if not using a workshop format. (C) has merit but may take too long for FSIS to review and would still have to do (A) after that. Option (C) should be utilized and better designed plans illustrated to the industry.
- (3) "Definitely no" for Option (B). It doesn't allow for enough industry input.

- (2) Development of model by HACCP experts such as Don Corlett. Independent models should have been submitted and discussed. Everyone would have benefited by others' ideas.
- (2) "No" for Option (A).
- (1) Option (A), comments on an FSIS-generated model published in the *Federal Register*, would generate the most input in the shortest period of time and therefore facilitate development at a faster pace.
- (1) "No" for Option (C)— too much variation in programs.

12. What was *most* beneficial to you about the workshop?

(28 comments)

- (8) Going through the actual process of designing a HACCP model. I have a better understanding of the step-by-step process in developing a HACCP program. The hazard assignment exercise. Very good for training only. Seeing the plan develop. Gaining a clearer understanding of what HACCP represents and is being designed to accomplish. Understanding of how a HACCP program would work in everyday situations. Achieving a general understanding of HACCP.
- (5) Observing the various opinions voiced by industry and USDA. The interaction of the different people present and more exposure to the reasons behind HACCP. The opportunities for industry, government, and academia to pool their respective knowledge. Hearing different comments from other companies. It made me aware of how far ahead some companies are. There are some aggressive companies and hopefully others will follow.
- (5) Small breakout sessions and their reports. Small group discussions were especially good. More was accomplished here than at any other point in the program. The reporting on the assigned items and discussion that ensued was better than large group discussions. Small breakout sessions and presence of observers.
- (3) The opportunity to meet USDA and other industry personnel and to develop a working relationship with them. The presence of USDA communications staff and their willingness to help me develop news stories and obtain the information needed.
- (2) The discussions— industry often was conservative and USDA wanted more action. The FSIS people were aggressive; industry sat on its haunches. Forcing industry to respond and acknowledge the need for their input.
- (2) All was beneficial. Overall it was interesting.
- (1) Being able to observe the overall confusion and lack of knowledge concerning HACCP.
- (1) The use of the computer terminals was effective. The quick distribution of hard copies of CCP information was equally effective.
- (1) The screens were difficult to read, especially from the far right and left edges of the observers' sections.



13. What was *least* beneficial to you about the workshop?

(18 comments)

- (5) Some people present had no idea what the basis of a HACCP plan is, let alone how to go about developing one. Too many people wanted a specific HACCP program directed toward their own particular needs. It is basically impossible for 50 people to develop a good generic HACCP plan in 3 days for use in a pilot program. If everyone here were trained in HACCP development then they might be able to develop such a plan, but they weren't. The HACCP model developed was a good start but has many holes and will not be complete for pilot testing. The lack of ability to properly determine CCPs because of confusion/lack of knowledge concerning HACCP. Lack of knowledge of some industry participants and the obvious individual agendas. Determining why HACCP is necessary; CCPs seem to be covered already.
- (4) The discussion tended to get bogged down at times when discussion leaders/facilitators allowed participants to rehash topics that already had been voted on. Arguing most points. The instructors in large group presentations were not as effective as they needed to be. The participants needed more explanation of hazards and CCPs. Also, one instructor repeatedly lost control of the class. At one point a participant stood in front of the class leading the instruction. Facilitators are to follow timelines and to solicit input but they also need to keep the focus by restating definitions, as needed, when the discussion gets off track.
- (4) As an observer, the breakout sessions were the least beneficial. Not being able to participate. Observers had very little participation. Lack of material for observers.
- (2) Tuesday morning was lost by beating the dead horse over and over. The first day! Too much ado about nothing.
- (1) The practice of reaching a consensus was completely abandoned. The decisions were reached by means of voting. At times only 28 out of approximately 45 participants voted. Voting creates a win/lose situation which should be avoided.
- (1) The lack of a true HACCP authority to help guide the workshop and provide explanations for HACCP terms, definitions and instructions. In addition, an authority on the current USDA regulations would have been helpful.
- (1) Because this was my first workshop it is difficult to say. I guess it will be the time I took to be here if nothing positive comes from the workshop.

14. Considering the agenda for the *first morning* of the workshop, should any of the introductory activities or presentations be expanded, shortened, or modified as to content, to better meet your needs? Please explain.

(19 comments)

- (10) The first morning's sessions were excellent. It was handled well. No changes. O.K. Leave as is. It was adequate.
- (6) All should be shortened. Get on with the program itself. There is enough time to meet people especially when biographical sketches of people present were given out. The entire workshop seemed to be rushed. More time should be allotted for breakout team discussions. Too much time on introductions. First morning could move faster. More than 1/2 of the 1st day was wasted on unnecessary introductory comments. This could be significantly shortened by curtailing speech-making that does not add to the development process.



- (2) Just about right but some of the information could have been shared the night before. Possibly shorten the agenda some. Generally good overall.
- (1) Give experience and expertise of FSIS personnel's time spent in poultry and/or meat plants.

15. Please use the rest of this page to make any additional comments that may help us understand your thoughts about the workshop and improve future activities.

(20 comments)

Workshop-related:

- (4) Notebooks and other written materials need to be provided to observers at the beginning of the workshop. The observers need to be provided with tables, water, and the same information as the participants. Observers need to be able to state their views also, especially during or after large group discussions. Eliminate 1st day's observer comments and allow time for this activity somewhere else in the program (after CCPs or small group exercises).
- (2) If HACCP programs are to be truly industry developed then USDA personnel should not vote when decisions are made. USDA should be advisors only. There were too many FSIS employees participating in the decision-making steps. Overall the insight provided by USDA was very good and professional, however, several comments by individual FSIS personnel exemplified a typical superiority attitude in relationships with plant personnel. Comments like "That's your job," were not beneficial to the dialogue at the time and placed participants in a combative position. However, the Washington-based USDA personnel were very professional.
- (2) More input was needed from USDA on regulations when questions regarding acceptable limits arise. USDA should take a more active role in steering the participants in the direction that USDA will require.
- (2) Some USDA facilitators need to improve their control in large group discussions. At times discussions got out of hand and this is when the facilitators need to mediate better! During the large group brainstorming sessions for ideas, I suggest you show all suggestions given by the participants. Often times the participants would say, "What did we say a minute ago?" By showing all the ideas for a hazard or CCP, less confusion would result and a true consensus could be reached. Without a true consensus there will not be total commitment from the industry for implementing the plan.
- (1) Would be best to solicit comments on an FSIS-generated model then hold this type of workshop for review. People reviewing (sent by companies/by industry) should be trained for HACCP development. Although I'm a member of a large food processor, I believe there is too much room for industry to deviate from what should be done to what is convenient for industry. FSIS and science must be adamant about certain CCPs and defend that position. Much of the same discussion that we had in the three days will still occur but we would have been a lot further along and companies would already have had the opportunity to input on a model before the meeting. I know this idea is a harder sell than the way FSIS is doing it now.
- (1) I am not industry or USDA, but a supplier to both. Meeting the people and seeing how the program works, the problems *etc.* helps us provide better goods and services to both. I enjoyed meeting Dr. Crawford and his staff.
- (1) I would suggest that the set-up be done in a round table or horseshoe arrangement for better eye contact and clearer understanding of the program and comments.
- (1) Thank you.

HACCP-related:

- (2) Since our company does much more than the HACCP model, I don't believe much was accomplished here. There was research data that was not shared that would have been helpful. I have the feeling when it got to really making a commitment there is a lack of trust in the intent of FSIS... Are we (industry) choosing which rope we will be hung with? I know several people who feel the whole exercise was a political tool to allow USDA to say it is a tool that industry cooperatively developed with yUSDA but it allows USDA to stay out of the business of microbial testing.
- (2) The USDA failed to use the expertise available in the US to aid in the development of a HACCP model. As a result we will have a program which in no way resembles a true HACCP plan. There were too many CCPs in the HACCP model. Keep CCPs to a minimum to keep a good focus!
- (1) Excellent discussion, however I question whether or not the plan should be used as a template for the turkey industry.
- (1) This program needs to start before the plant level. It needs to start at the hatchery and continue through each level.





# Summary of the Evaluation Results of the Workshop for HACCP Model Development

Phoenix, Arizona, December 3 - 5, 1991

**Fresh Ground Beef**

**Fresh Ground Beef**





## INTRODUCTION

This report presents the evaluation results from the Food Safety and Inspection Service (FSIS) of the United States Department of Agriculture (USDA) workshop to develop a generic model for a Hazard Analysis and Critical Control Point (HACCP) plan for fresh ground beef. Representatives from industry, trade associations and government met in Phoenix, Arizona, December 3 - 5, 1991, for this workshop which focused on ground beef patties. The workshop was open to the public for observation, on a reserved space basis.

Participants and Observers were asked to complete a questionnaire which asked them questions related to the design and operation of the workshop, the workshop materials, the process employed in developing a generic HACCP model, and their views concerning the workshop approach and any suggested improvements. Of the 31 Participants and 12 Observers in attendance, 28 Participants (90%) and 6 Observers (50%) responded to the questionnaire.

This evaluation activity is one in a series of on-going evaluation tasks that are a part of the HACCP Implementation Study. The results of this evaluation should serve to help plan subsequent workshops and to provide background information to aid in future planning decisions related to HACCP.

## REPORT PLAN

This report is organized into two sections. Section I presents the results and summary of Participants' responses and Section II presents those for the Observers. Results of the **multiple-choice questions** are presented in a format based on that of the original questionnaire. The responses are reported by number and percent of responses for each category. Percentages reported are based on the number of responses to each question and do not always total 100 percent due to arithmetic rounding.

Results of the **open-ended questions** are also summarized in each Section. A content analysis was performed for all hand-written comments. Respondents' remarks are paraphrased and grouped by question. Some respondents made multiple comments while others made none, thus the number of comments per question does not equal the number of respondents. The number of respondents who concurred with each comment is listed parenthetically.





**SECTION I— PARTICIPANTS**

**SUMMARY OF PARTICIPANTS' RESPONSES TO  
EVALUATION QUESTIONNAIRE**





## SUMMARY OF PARTICIPANTS' RESPONSES

### RESPONDENT CHARACTERISTICS

1. Which grouping below best characterizes your current affiliation?

Meat & Poultry Industry:	23/82%	Private Laboratory:	1/4%
Soup and Dressing:	1/4%	Equipment Manufacturer:	1/4%
Trade Association:	1/4%	Industry Consultant:	1/4%

2. If you marked "Meat & Poultry Industry" in Question 1, please indicate all groupings below which best characterize your industry type and the total production volume of your establishment(s). [Low Volume Establishment = 1 - 59,999 lbs. produced/Quarter; Medium Volume Establishment = 60,000 - 1,000,000 lbs. produced/Quarter; High Volume Establishment = more than 1,000,001 lbs. produced/Quarter]

Meat Industry	Low Volume Establishment(s):	0/0%
	Medium Volume Establishment(s):	4/17%
	High Volume Establishment(s):	11/48%

Meat & Poultry Industry	Low Volume Establishment(s):	0/0%
	Medium Volume Establishment(s):	1/4%
	High Volume Establishment(s):	7/30%

3. Days attended (mark all that apply):      1 Day: 1/4%      2 Days: 1/4%      3 Days: 26/93%

4. Please check one:      Observer: 0      Participant: 28

### HACCP MODEL DEVELOPMENT

	<u>Very Successful</u>	<u>Successful</u>	<u>Somewhat Successful</u>	<u>Not Successful</u>	<u>Very Unsuccessful</u>	<u>Don't Know</u>
5. Overall, how successful was the workshop in:						
a. Identifying Critical Control Points (CCPs)?	6/22%	17/63%	4/15%	0/0%	0/0%	0/0%
b. Determining critical limits for each CCP?	6/22%	17/63%	4/15%	0/0%	0/0%	0/0%
c. Developing monitoring plan activity for identified CCPs?	7/28%	13/52%	5/20%	0/0%	0/0%	0/0%
d. Developing corrective action approaches?	7/28%	12/48%	6/24%	0/0%	0/0%	0/0%
e. Developing record-keeping systems?	5/20%	6/24%	13/52%	0/0%	0/0%	1/4%
f. Developing verification procedures?	5/20%	9/36%	11/44%	0/0%	0/0%	0/0%
g. Developing a generic HACCP model?	8/32%	12/48%	5/20%	0/0%	0/0%	0/0%

NOTE: Results are presented as number of responses/% of responses for each category.

# DESIGN AND OPERATION OF WORKSHOP

	<u>More than Adequate</u>	<u>Adequate</u>	<u>Marginally Adequate</u>	<u>Inadequate</u>	<u>Very Inadequate</u>	<u>Don't Know</u>
6. Please rate the workshop in terms of:						
a. Development of a generic product / process description	9/32%	16/57%	2/7%	1/4%	0/0%	0/0%
b. Development of process flow diagram	7/25%	16/57%	2/7%	3/11%	0/0%	0/0%
c. Organization of the three days	14/52%	10/37%	2/7%	1/4%	0/0%	0/0%
d. Use of small "break-out" groups	17/61%	9/32%	2/7%	0/0%	0/0%	0/0%
e. Reporting of small "break-out" group activities to entire group	11/39%	13/46%	4/14%	0/0%	0/0%	0/0%
f. Opportunity for input from Observers	7/30%	7/30%	3/13%	1/4%	1/4%	4/17%
g. Opportunity for input from Participants	21/75%	7/25%	0/0%	0/0%	0/0%	0/0%
h. Effectiveness of facilitators in helping achieve workshop objectives	17/61%	10/36%	0/0%	0/0%	1/4%	0/0%
i. Effectiveness of subject matter experts in helping achieve workshop objectives	8/29%	15/54%	5/18%	0/0%	0/0%	0/0%
j. Effectiveness of group leaders in helping achieve workshop objectives	12/43%	14/50%	2/7%	0/0%	0/0%	0/0%
k. Effectiveness of group reporters in helping achieve workshop objectives	9/32%	16/57%	3/11%	0/0%	0/0%	0/0%
l. Completion of workshop objectives.	12/43%	13/46%	3/11%	0/0%	0/0%	0/0%
	<u>Strongly Agree</u>	<u>Agree</u>	<u>Neutral</u>	<u>Disagree</u>	<u>Strongly Disagree</u>	<u>Don't Know</u>
7. Please indicate your degree of agreement with each of the following statements.						
a. The HACCP model developed by the workshop participants is a viable framework for the industry to implement on a test basis.	11/41%	11/41%	4/15%	1/4%	0/0%	0/0%
b. The workshop format offers a sound approach for producing a generic HACCP model for other meat and poultry products.	12/44%	11/41%	3/11%	1/4%	1/4%	0/0%
c. The presence of Observers was beneficial to the workshop.	2/8%	4/17%	9/38%	3/13%	1/4%	5/21%
d. The workshop resulted in a useful generic HACCP model developed by industry participants.	10/37%	14/52%	2/7%	1/4%	0/0%	0/0%



**WORKSHOP MATERIALS** (Observers: Please skip Question 8 and continue with Question 9.)

	<u>Very Useful</u>	<u>Useful</u>	<u>Somewhat Useful</u>	<u>Not Useful</u>	<u>Not At All Useful</u>
8. Overall, how useful were the written materials for:					
a. Assessing finished product hazards?	8/29%	16/57%	4/14%	0/0%	0/0%
b. Assessing ingredient hazards?	6/21%	13/46%	8/29%	0/0%	1/4%
c. Determining placement of CCPs on flow diagram?	9/32%	14/50%	3/11%	1/4%	1/4%
d. Determining critical limits for each CCP?	4/14%	17/61%	6/21%	0/0%	1/4%
e. Developing assigned CCP monitoring plan?	4/15%	18/67%	5/19%	0/0%	0/0%
f. Developing corrective action approaches?	4/15%	17/63%	5/19%	0/0%	1/4%
g. Developing record-keeping systems?	6/22%	14/52%	6/22%	0/0%	1/4%
h. Developing verification procedures?	6/22%	15/56%	5/19%	0/0%	1/4%
i. Developing a generic HACCP model?	8/31%	14/54%	4/15%	0/0%	0/0%

**WORKSHOP EXPECTATIONS**

9. Did the workshop accomplish what you expected? Yes: 26/93% No: 2/7%  
Please explain.

(18 comments)

- (5) Yes. I now have a much better understanding of what HACCP is, how to develop a specific plan, and how to implement it in the field. I now know the proper steps to develop a HACCP program and material for training at my facility. I wanted to know where FSIS was in the HACCP study and if I could implement the plan in my plant as FSIS may require. Basically I came here to get an understanding of HACCP and how it might be implemented. The generic model and the steps to achieve it accomplished these goals. It showed me a lot of work and research have to go into it.
- (4) Yes. We accomplished our goal of developing a generic HACCP model for ground beef patties.
- (2) Yes. Very helpful. Concept outstanding. I strongly support this process that is based on (1) TQM principles, (2) team-building, idea generation, consensus-building; and (3) beneficial cooperation between government and industry. Thank you.
- (2) Yes. I think the workshop opened up more of what HACCP is about and how it affects individual companies. I now have a more positive attitude toward the program. It should give each plant a strong skeleton to build on and to develop beyond minimum wholesome requirements.
- (2) No. Very general. I could have completed this at the office. The HACCP model developed was extremely vague. Industry's apprehensions about the HACCP system are clearly reflected in the model developed. I realize that many issues addressed will be plant-specific and will vary, however, what was produced could not be taken home and implemented as is. I believe there is still too much opportunity for companies to avoid the underlying purpose of HACCP: to produce wholesome, safe products.



- (1) Yes. In the first USDA HACCP meeting I attended a couple of years ago, I felt that USDA did not have a good grasp of HACCP concepts, but now they seem well-versed on it and knowledgeable.
- (1) Yes. The workshop accomplished more than what I had expected!
- (1) Yes. It gave me an understanding of the direction to use in determining CCPs. I do not produce the products used in this workshop, however, I will be able to adapt the model to fit my operations.

10. Did the individual sessions accomplish what you expected? Please explain.

Yes for	Yes for	No for
All: 21/75%	Some: 7/25%	All: 0/0%

(15 comments)

- (5) Yes for All. The informal discussions gave us a chance to explain our viewpoints, answer questions and focus more closely on certain things that were glossed over in the large group. Good use of different ways of developing a HACCP plan, small group, large group, facilitators, group leaders, recorders, etc. The brainstorming aspect worked very efficiently.
- (3) Yes for All. Things were well-organized; this was a big part of getting things accomplished. The workshop was kept on schedule. The structure prevented domination by a few people.
- (2) Yes for All. The workshop took into account concerns for different company sizes for HACCP program development. It provided an opportunity for individuals in industry to interact and to work to obtain a common goal.
- (2) Yes for All. At times it seemed like the process was overwhelming, but the effort paid off in the final product. We developed principles that could easily be adapted into industry.
- (1) Yes for All. I learned a lot about what HACCP is and was able to determine that I could not implement a HACCP plan in my plant for financial and practical reasons and that many other plants have the same problem.
- (1) Yes for All. I gained a basic understanding of HACCP and program development.
- (1) Yes for Some. The primary accomplishment of this workshop was one of showing industry workers, first-hand, what is involved in the development and implementation of such a program. That was very valuable. Also, for the most part, it is positively perceived that government has given industry the opportunity to work through this process together.

### COMMENTS

11. Methods other than a workshop format could have been employed to develop a generic HACCP model. Examples of options include an FSIS request for (a) comments on an FSIS-generated model published in the *Federal Register*; (b) development of a model by selected academicians; or (c) submission to FSIS of independently-generated models. Please indicate your preference for one of the above-listed options, or describe any others not mentioned that you would like to be considered by FSIS in the future.

(22 comments)

### Concerning use of a workshop format:

- (8) Workshop format was excellent. Workshop format was ideal to develop a HACCP model. The workshops are the best way to do these programs.

- (3) Use the workshop format. Although arduous to "quick results"-oriented industry, the process is important so that everyone has buy-in to the end product of the entire group. The workshop format informs better and lets individuals work together to find a happy medium that works for all sizes of companies. The present format has industry and USDA working together. It is not having someone else develop a program and then tell everyone to make it work. This way all HACCP programs follow the same format.
- (2) This was by far the best method. It had everyone present so everything was aired. The other methods would have resulted in "back and forth" discussion "forever" between industry and government. Workshops as this one save a good deal of "flack" from industry.
- (2) None of the options above. Models are best built through idea generation. I suggest that a follow-up workshop be held after the pilot program to review that work and to discuss in an open forum what modifications to make to a preliminary model.
- (2) Prefer the workshop method. Second choice would be Option (C): submission to FSIS of independently-generated models.

Concerning other options:

- (2) Option (A): comments on an FSIS-generated model published in the *Federal Register*. Of these options, I believe comments on an FSIS model may work. Comments should come from as many different groups as possible, not industry alone.
- (2) Option (C): submission of independently-developed models.
- (1) Option (B): development of a model by selected academicians.

12. What was *most* beneficial to you about the workshop?

(23 comments)

- (6) Getting involved! Cooperation between processors and FSIS— it was great! Interaction, comments and input from representatives of all sectors. Having both industry and governmental input to develop a HACCP model. Meeting other members of industry and meeting persons responsible for decision-making.
- (5) Insight into the purpose of HACCP. Learning what HACCP is and what it may lead to. Understanding HACCP and its development and implementation. The steps involved in the development of the HACCP program and the materials made available for further training when I return to my facility.
- (4) Group participation. Participation in small group sessions with reports to large groups was most beneficial.
- (3) Sharing ideas and problems that face all of us to produce safe product. The interaction between the Participants and also between the Participants and the FSIS staff. The more different perspectives that can be shared and evaluated, the more useful the session. The opportunity to provide input by stating my own views, concerns and desires.
- (3) Well-organized, good, necessary information. Helps give an idea of what is happening in other areas of the country regarding regulatory issues.



(1) Observing politics in action!

(1) I was able to determine that it is impractical and unnecessary in a small plant.

13. What was *least* beneficial to you about the workshop?

(14 comments)

(3) Nothing. Everything was necessary.

(3) Big discussion over small words. Too much discussion of "words" in development of the model. This should be handled by the Steering Committee.

(2) The first morning. Remarks at the opening of the workshop.

(1) Too slow.

(1) I think we could have eliminated the first part of assessing CCPs in the flow diagram. Going back to eliminate whether there actually were risks involved and deleting some seemed like an unnecessary step.

(1) Too much discussion of individual plant processes.

(1) Most FSIS people stayed together and we didn't get time to talk one-on-one, or in a less formal session.

(1) Observers and too many government personnel with different opinions about how programs should be developed and implemented.

(1) Voting on the same items over and over.

14. Considering the agenda for the *first morning* of the workshop, should any of the introductory activities or presentations be expanded, shortened, or modified as to content, to better meet your needs? Please explain.

(19 comments)

(9) The agenda seemed acceptable to me. What was presented was adequate. The first morning set the stage for the remainder of the workshop. I would not expand or add anything. Just fine. I needed time to understand the objectives and methodology. Once those were clear, it became easy to be productive during discussions.

(6) The first session was too slow. It should be shortened. Introduction was too long. All of the introduction should be shortened to a brief overview of HACCP by one individual. History not needed. Some of the "history lesson" could have been excluded. I would say it was marginally beneficial—I was already familiar with a lot of the information.

(1) First morning's agenda was more than adequate!

(1) Define HACCP and give an overview of how a program is set up prior to jumping right into setting one up.

(1) Emphasize that Participants should study materials prior to the workshop and shorten the first morning's introductory activities.

(1) USDA people did a good job of making you welcome, but more time should have been allowed for everyone to get to know each other.



15. Please use the rest of this page to make any additional comments that may help us understand your thoughts about the workshop and improve future activities.

(28 comments)

Workshop-related:

- (6) Good Show!! Things were organized and planned well and moved along well for such a diversified group. It was good to form policies with industry and USDA personnel input. You get a well-balanced decision. Very good idea to let industry write guidelines that they would be comfortable with. We must work together. The cross-section of size of companies represented was good and important so that the model is not skewed to large vs. small (or vice versus) companies. I appreciate the opportunity to be involved. Keep up the open and friendly relationship between industry and USDA.
- (3) Not good to have previous models available. Do not give us the comments of other workshops. Let us get our own ideas. Previous models should not be passed out until the end of the session. I believe you would get more additional input, rather than copies of what the last workshop thought up.
- (1) It really helped a lot that we had access to the output of other workshops. We could creatively add to their work rather than waste time re-creating the same steps.
- (1) The workshop did a very good job of showing the steps involved in developing a HACCP program. It also provided material for training of employees when we start our implementation.
- (1) The second day's listing of all potential CCPs then going back and reviewing seemed redundant.
- (1) It would be useful to have a single, short document to refer to during discussions rather than having to search for reminders of points made earlier.
- (1) Provide more information on volunteer plants for testing HACCP program.
- (1) The workshop could be handled more quickly if a test model were developed prior to the workshop and discussed.
- (1) Stress the importance of generic.
- (1) The program was dominated by a small group of people— especially by those who are not in the industry of producing ground beef.

HACCP-related:

- (1) This program is just a fancy name for programs that our plants are presently doing.
- (1) I started out employing three people and was a laborer myself as well as owner/manager. As the plant grew larger record-keeping became proportionally important. (The larger the plant got the more record-keeping.) But with 100 current employees we do not need near the paperwork that HACCP would generate. I can see where it would apply in a very large plant (more than 500 employees), but for anything smaller it is impractical. The largest difference between what is proposed and our current procedure is we record only the defects. If everything is OK we do not keep any record. This greatly reduces expenses.

Other ideas:

- (2) Why so many government people? This was a common question by many of the Participants. Excessive number of FSIS employees here who had no role in the workshop. Why were they here? Money was wasted!
- (2) Arrange the material in the workbook in a more orderly fashion. Need page numbers on overhead sheets and on pages in the workbook.
- (1) Save space and paper by re-setting the overhead charts into bullet points typed on fewer pages. I don't need the type size to be 1/2" when it's right in front of me.
- (1) This may sound a little picky, but the name tags were totally useless because the printing was hard to read against the colored background and it was hard to tell who you were talking to during breaks. Bold lettering against a white background makes more sense.
- (1) Many Participants did not receive the materials mailed concerning the workshop prior to the workshop. That started things off in a negative light.
- (1) My frustration was that there wasn't more emphasis on education. This large a group would have been a good forum for such educational interaction, for example: specifics on metal detection procedures.
- (1) Great facility; terrible sound.

**SECTION II— OBSERVERS**

**SUMMARY OF OBSERVERS' RESPONSES TO  
EVALUATION QUESTIONNAIRE**





## SUMMARY OF OBSERVERS' RESPONSES \*

### RESPONDENT CHARACTERISTICS

1. Which grouping below best characterizes your current affiliation?

Meat & Poultry Industry:	1/17%
Other Federal Government:	2/33%
Other:	2/33%
Unspecified:	1/17%

2. If you marked "Meat & Poultry Industry" in Question 1, please indicate all groupings below which best characterize your industry type and the total production volume of your establishment(s). [Low Volume Establishment = 1 - 59,999 lbs. produced/Quarter; Medium Volume Establishment = 60,000 - 1,000,000 lbs. produced/Quarter; High Volume Establishment = more than 1,000,001 lbs. produced/Quarter]

Meat & Poultry Industry	Low Volume Establishment(s):	0/0%
	Medium Volume Establishment(s):	0/0%
	High Volume Establishment(s):	1/100%

3. Days attended (mark all that apply):      1 Day: 0/0%      2 Days: 0/0%      3 Days: 6/100%

4. Please check one:      Observer: 6      Participant: 0

### HACCP MODEL DEVELOPMENT

	<u>Very Successful</u>	<u>Successful</u>	<u>Somewhat Successful</u>	<u>Not Successful</u>	<u>Very Unsuccessful</u>	<u>Don't Know</u>
5. Overall, how successful was the workshop in:						
a. Identifying Critical Control Points (CCPs)?	3/50%	1/17%	1/17%	1/17%	0/0%	0/0%
b. Determining critical limits for each CCP?	1/17%	2/33%	3/50%	0/0%	0/0%	0/0%
c. Developing monitoring plan activity for identified CCPs?	1/17%	2/33%	3/50%	0/0%	0/0%	0/0%
d. Developing corrective action approaches?	1/17%	3/50%	2/33%	0/0%	0/0%	0/0%
e. Developing record-keeping systems?	1/17%	2/33%	3/50%	0/0%	0/0%	0/0%
f. Developing verification procedures?	1/17%	2/33%	3/50%	0/0%	0/0%	0/0%
g. Developing a generic HACCP model?	1/17%	4/67%	1/17%	0/0%	0/0%	0/0%

NOTE: Results are presented as number of responses/% of responses for each category.

\* Due to the very small number of observers, percentages may be misleading.

# DESIGN AND OPERATION OF WORKSHOP

	<u>More than Adequate</u>	<u>Adequate</u>	<u>Marginally Adequate</u>	<u>Inadequate</u>	<u>Very Inadequate</u>	<u>Don't Know</u>
6. Please rate the workshop in terms of:						
a. Development of a generic product/process description	1/17%	5/83%	0/0%	0/0%	0/0%	0/0%
b. Development of process flow diagram	1/17%	5/83%	0/0%	0/0%	0/0%	0/0%
c. Organization of the three days	4/67%	2/33%	0/0%	0/0%	0/0%	0/0%
d. Use of small "break-out" groups	4/67%	1/17%	0/0%	1/17%	0/0%	0/0%
e. Reporting of small "break-out" group activities to entire group	4/67%	2/33%	0/0%	0/0%	0/0%	0/0%
f. Opportunity for input from Observers	2/33%	1/17%	0/0%	1/17%	2/33%	0/0%
g. Opportunity for input from Participants	2/33%	3/50%	0/0%	1/17%	0/0%	0/0%
h. Effectiveness of facilitators in helping achieve workshop objectives	5/83%	1/17%	0/0%	0/0%	0/0%	0/0%
i. Effectiveness of subject matter experts in helping achieve workshop objectives	3/50%	2/33%	0/0%	0/0%	0/0%	1/17%
j. Effectiveness of group leaders in helping achieve workshop objectives	4/67%	2/33%	0/0%	0/0%	0/0%	0/0%
k. Effectiveness of group reporters in helping achieve workshop objectives	3/50%	2/33%	1/17%	0/0%	0/0%	0/0%
l. Completion of workshop objectives.	3/50%	3/50%	0/0%	0/0%	0/0%	0/0%
	<u>Strongly Agree</u>	<u>Agree</u>	<u>Neutral</u>	<u>Disagree</u>	<u>Strongly Disagree</u>	<u>Don't Know</u>
7. Please indicate your degree of agreement with each of the following statements.						
a. The HACCP model developed by the workshop participants is a viable framework for the industry to implement on a test basis.	2/33%	2/33%	1/17%	1/17%	0/0%	0/0%
b. The workshop format offers a sound approach for producing a generic HACCP model for other meat and poultry products.	2/33%	4/67%	0/0%	0/0%	0/0%	0/0%
c. The presence of Observers was beneficial to the workshop.	1/17%	3/50%	1/17%	1/17%	0/0%	0/0%
d. The workshop resulted in a useful generic HACCP model developed by industry participants.	2/33%	2/33%	2/33%	0/0%	0/0%	0/0%



WORKSHOP MATERIALS (Observers: Please skip Question 8 and continue with Question 9.)

<u>Very Useful</u>	<u>Useful</u>	<u>Somewhat Useful</u>	<u>Not Useful</u>	<u>Not At All Useful</u>
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8. Overall, how useful were the written materials for:

- a. Assessing finished product hazards?
- b. Assessing ingredient hazards?
- c. Determining placement of CCPs on flow diagram?
- d. Determining critical limits for each CCP?
- e. Developing assigned CCP monitoring plan?
- f. Developing corrective action approaches?
- g. Developing record-keeping systems?
- h. Developing verification procedures?
- i. Developing a generic HACCP model?

OBSERVERS WERE INSTRUCTED TO  
SKIP THIS QUESTION.

WORKSHOP EXPECTATIONS

9. Did the workshop accomplish what you expected?  
Please explain.

Yes: 3/50%

No: 3/50%

(8 comments)

- (3) Yes. I learned much about how HACCP operates. The HACCP Committee did an excellent job and worked hard to help the Participants come up with a model. The generic model was generated through input from industry representatives.
- (2) No. I anticipated some solid guidelines to be produced by industry as to what was "adequate" for their own self-regulation. Instead I found a sense of "fear" that the small plant operators couldn't comply with any type of a minimum guideline, whether it be a temperature or time length or amount of foreign material. Some Participants are looking at FSIS as an enemy rather than as an ally.
- (2) No. I felt restrained from offering input which might have contributed to the process. There should have been time allotted for the Observers to comment— perhaps a few minutes at the end of each workshop or session, even though we could not vote, etc. I believe outside input would still be beneficial.
- (1) No. I really felt the Participants would be more critical of themselves and come up with more CCPs. I felt each Participant was looking out for their individual plants, and addressing their own unique problems.

- |   |                       |                        |                     |
|---|-----------------------|------------------------|---------------------|
| 10. Did the individual sessions accomplish what you expected? Please explain. | Yes for<br>All: 1/20% | Yes for<br>Some: 4/80% | No for<br>All: 0/0% |
|---|-----------------------|------------------------|---------------------|

(5 comments)

- (1) Yes for All. Individual groups accomplished assigned tasks effectively and efficiently.
- (1) Yes for Some. Some good brainstorming, a great sense of camaraderie between the teams, good negotiations for a consensus. However, no one felt comfortable enough to identify a specific guideline and be able to justify it to the entire workshop.
- (1) Yes for Some. I felt there was some confusion by some Participants as to what the goals were. Other Participants understood what the purpose of developing a HACCP model was all about.
- (1) Yes for Some. I was not able to observe enough of the small group sessions.
- (1) Yes for Some. There were times when I felt like the speakers had almost put the Participants to sleep. Presentation dynamics are very important.

#### COMMENTS

11. Methods other than a workshop format could have been employed to develop a generic HACCP model. Examples of options include an FSIS request for (a) comments on an FSIS-generated model published in the Federal Register; (b) development of a model by selected academicians; or (c) submission to FSIS of independently-generated models. Please indicate your preference for one of the above-listed options, or describe any others not mentioned that you would like to be considered by FSIS in the future.

(4 comments)

#### Concerning use of a workshop format:

- (2) Use the workshop format. I was very satisfied with the workshop format as it provided a great amount of feedback from all Participants and allowed lots of open communication. A government-generated model would not have had as much discussion as to what could be accomplished by the small operator. It seemed they were the greatest concern.

#### Concerning other options:

- (1) If the workshop method is not used, I would prefer development by a small independent group selected from academia, industry and government.
- (1) Option (B). A generic model should have been developed and presented to the workshop Participants for their modification, as needed.



12. What was *most* beneficial to you about the workshop?

(6 comments)

- (2) The actual model which was generated. Explanation of the HACCP process and model development in the large group sessions.
- (2) I liked the organization and the format of the workshop and appreciated the efforts made to keep on schedule. The HACCP Committee was very organized and knew what direction they were going. I know it is hard to develop a program or model with so many different ideas.
- (2) To observe the attitudes and actions of industry "people" in their own realm— without motivation provided by inspections. I really got a feel for how industry "bands together" to look after each other.

13. What was *least* beneficial to you about the workshop?

(6 comments)

- (2) I was disappointed to see that when industry had the opportunity to set some "general" guidelines they were very resistant to generate any numbers or generic procedures. "Plant-specific" did not identify any common procedure or method any plant could put in place. The Participants did not really understand the real purpose of the workshop. Possibly they were protecting their turf. I also believe the Participants did not feel that HACCP is important. They were reluctant to identify CCPs.
- (2) The lack of participation for Observers. I felt they should have been informed that they could comment and when those comments could be voiced. Observers should have some input or be able to make some comments.
- (1) As an Observer, the breakout into small group sessions did not allow me to follow what was really happening.
- (1) The history/background on ground beef was least beneficial.

14. Considering the agenda for the *first morning* of the workshop, should any of the introductory activities or presentations be expanded, shortened, or modified as to content, to better meet your needs? Please explain.

(5 comments)

- (2) The introductory activities as conducted (not as scheduled) appeared to be appropriate. The agenda seemed appropriate for the intended purpose.
- (1) The HACCP Committee should be more direct and control the meeting more. The concept of "generic model" needs to be made more clear. The Participants were trying to put their own needs or concerns into the model instead of coming up with a generic model.
- (1) Shorten the instructions given during the introduction and spend more time on specific plant-type operations to identify a true critical control point.
- (1) Shorten the history/background on ground beef; add history/background on HACCP.



15. Please use the rest of this page to make any additional comments that may help us understand your thoughts about the workshop and improve future activities.

(5 comments)

- (1) There are obviously more efficient ways to develop the models, however, the educational benefit of the workshop approach appears to be appropriate for this activity. It will certainly enhance the chances of acceptance of HACCP by industry and inspectors if it is implemented.
- (1) I was surprised to see how many potential CCPs were not identified by industry. They felt any type of water was acceptable without testing and assumed many incoming products were OK— sight unseen. They all felt the plant workers never varied from the best of Good Management Practices and so therefore no checks and balances were needed as processing progressed. It seemed as though no one wanted any unnecessary burdens placed upon any company— always citing the small plants.
- (1) This workshop reemphasized more than ever to me why meat and poultry inspection is needed. I enjoyed the proceedings, not the Participants' indecision. FSIS or the HACCP Committee should have developed the HACCP model and left the Participants out of developing the model. Maybe some consumer groups also could have helped formulate the HACCP model. The Participants were unwilling to face up to this responsibility. Also, there should be one or two HACCP Committee members who work for State programs. State participation on the Committee was nil. Remember most states pay for 50% of the programs in their states.
- (1) The use of State Talmadge/ Aiken, USDA inspectors should be considered for future HACCP or other such Federal programs since USDA is helping with the funding and all Talmadge/ Aiken inspectors should be USDA-certified as being "equal to" Federal inspectors, thus qualifying them for participation in all areas.
- (1) FSIS staff was most friendly and helpful; facilities were excellent. Organization of workshop also was excellent and the notebook of materials and the handouts were very helpful. Thank you for the opportunity to observe!

# Summary of the Evaluation Results of the Workshop for HACCP Model Development

Minneapolis, Minnesota, March 31 - April 2, 1992

# Swine Slaughter

# Swine Slaughter







## INTRODUCTION

This report presents the evaluation results from the Food Safety and Inspection Service (FSIS) of the United States Department of Agriculture (USDA) workshop to develop a generic model for a Hazard Analysis and Critical Control Point (HACCP) plan for swine slaughter. Representatives from industry, trade associations and government met in Minneapolis, Minnesota, March 31 - April 2, 1992, for this workshop which focused on market hogs. The workshop was open to the public for observation, on a reserved space basis.

Participants and Observers were asked to complete a questionnaire which asked them questions related to the design and operation of the workshop, the workshop materials, the process employed in developing a generic HACCP model, and their views concerning the workshop approach and any suggested improvements. Of the 30 Participants and 6 Observers in attendance, 30 Participants (100%) and 2 Observers (33%) responded to the questionnaire.

This evaluation activity is one in a series of on-going evaluation tasks that are a part of the HACCP Implementation Study. The results of this evaluation should serve to help plan subsequent workshops and to provide background information to aid in future planning decisions related to HACCP.

## REPORT PLAN

This report is organized into two sections. Section I presents the results and summary of Participants' responses and Section II presents those for the Observers. Results of the **multiple-choice questions** are presented in a format based on that of the original questionnaire. The responses are reported by number and percent of responses for each category. Percentages reported are based on the number of responses to each question and do not always total 100 percent due to arithmetic rounding.

Results of the **open-ended questions** are also summarized in each Section. A content analysis was performed for all hand-written comments. Respondents' remarks are paraphrased and grouped by question. Some respondents made multiple comments while others made none, thus the number of comments per question does not equal the number of respondents. The number of respondents who concurred with each comment is listed parenthetically.



**SECTION I— PARTICIPANTS**

**SUMMARY OF PARTICIPANTS' RESPONSES TO  
EVALUATION QUESTIONNAIRE**





## SUMMARY OF PARTICIPANTS' RESPONSES

### RESPONDENT CHARACTERISTICS

1. Which grouping below best characterizes your current affiliation?

Meat & Poultry Industry:	28/93%
Educational Institution:	1/3%
Other Government:	1/3%

2. If you marked "Meat & Poultry Industry" in Question 1, please indicate all groupings below which best characterize your industry type and the total production volume of your establishment(s). [Low Volume Establishment = 1 - 59,999 lbs. produced/Quarter; Medium Volume Establishment = 60,000 - 1,000,000 lbs. produced/Quarter; High Volume Establishment = more than 1,000,001 lbs. produced/Quarter]

Meat Industry	Low Volume Establishment(s):	0/0%
	Medium Volume Establishment(s):	2/7%
	High Volume Establishment(s):	25/89%
	Volume Unspecified:	1/4%

3. Days attended (mark all that apply):      1 Day: 3/10%      2 Days: 0/0%      3 Days: 27/90%

4. Please check one:      Observer: 0      Participant: 30

### HACCP MODEL DEVELOPMENT

	<u>Very Successful</u>	<u>Successful</u>	<u>Somewhat Successful</u>	<u>Not Successful</u>	<u>Very Unsuccessful</u>	<u>Don't Know</u>
5. Overall, how successful was the workshop in:						
a. Identifying Critical Control Points (CCPs)?	3/10%	19/63%	8/27%	0/0%	0/0%	0/0%
b. Determining critical limits for each CCP?	3/10%	20/67%	7/23%	0/0%	0/0%	0/0%
c. Developing monitoring plan activity for identified CCPs?	3/10%	19/63%	8/27%	0/0%	0/0%	0/0%
d. Developing corrective action approaches?	4/13%	20/67%	6/20%	0/0%	0/0%	0/0%
e. Developing record-keeping systems?	1/3%	23/77%	5/17%	1/3%	0/0%	0/0%
f. Developing verification procedures?	1/3%	25/83%	4/13%	0/0%	0/0%	0/0%
g. Developing a generic HACCP model?	4/13%	22/73%	4/13%	0/0%	0/0%	0/0%

**NOTE:** Results are presented as number of responses/% of responses for each category.

# DESIGN AND OPERATION OF WORKSHOP

	<u>More than Adequate</u>	<u>Adequate</u>	<u>Marginally Adequate</u>	<u>Inadequate</u>	<u>Very Inadequate</u>	<u>Don't Know</u>
6. Please rate the workshop in terms of:						
a. Development of a generic product/process description	8/28%	21/72%	0/0%	0/0%	0/0%	0/0%
b. Development of process flow diagram	11/38%	18/62%	0/0%	0/0%	0/0%	0/0%
c. Organization of the three days	11/37%	15/50%	4/13%	0/0%	0/0%	0/0%
d. Use of small "break-out" groups	17/57%	13/43%	0/0%	0/0%	0/0%	0/0%
e. Reporting of small "break-out" group activities to entire group	9/30%	20/67%	1/3%	0/0%	0/0%	0/0%
f. Opportunity for input from Observers	3/10%	12/40%	7/23%	5/17%	2/7%	1/3%
g. Opportunity for input from Participants	15/52%	14/48%	0/0%	0/0%	0/0%	0/0%
h. Effectiveness of facilitators in helping achieve workshop objectives	16/53%	12/40%	2/7%	0/0%	0/0%	0/0%
i. Effectiveness of subject matter experts in helping achieve workshop objectives	8/27%	16/53%	6/20%	0/0%	0/0%	0/0%
j. Effectiveness of group leaders in helping achieve workshop objectives	14/47%	16/53%	0/0%	0/0%	0/0%	0/0%
k. Effectiveness of group reporters in helping achieve workshop objectives	7/23%	23/77%	0/0%	0/0%	0/0%	0/0%
l. Completion of workshop objectives.	6/20%	22/73%	2/7%	0/0%	0/0%	0/0%
	<u>Strongly Agree</u>	<u>Agree</u>	<u>Neutral</u>	<u>Disagree</u>	<u>Strongly Disagree</u>	<u>Don't Know</u>
7. Please indicate your degree of agreement with each of the following statements.						
a. The HACCP model developed by the workshop participants is a viable framework for the industry to implement on a test basis.	3/10%	23/77%	3/10%	1/3%	0/0%	0/0%
b. The workshop format offers a sound approach for producing a generic HACCP model for other meat and poultry products.	10/33%	15/50%	3/10%	2/7%	0/0%	0/0%
c. The presence of Observers was beneficial to the workshop.	2/7%	4/13%	17/57%	6/20%	0/0%	1/3%
d. The workshop resulted in a useful generic HACCP model developed by industry participants.	5/17%	19/63%	5/17%	1/3%	0/0%	0/0%



**WORKSHOP MATERIALS** (Observers: Please skip Question 8 and continue with Question 9.)

	<u>Very Useful</u>	<u>Useful</u>	<u>Somewhat Useful</u>	<u>Not Useful</u>	<u>Not At All Useful</u>
8. Overall, how useful were the written materials for:					
a. Assessing hazards?	6/21%	20/69%	3/10%	0/0%	0/0%
b. Identifying preventive measures?	3/10%	17/59%	9/31%	0/0%	0/0%
c. Determining placement of CCPs on flow diagram?	6/21%	18/64%	4/14%	0/0%	0/0%
d. Determining critical limits for each CCP?	4/14%	18/62%	5/17%	2/7%	0/0%
e. Developing assigned CCP monitoring plan?	4/14%	16/57%	7/25%	1/4%	0/0%
f. Developing corrective action approaches?	3/11%	20/71%	4/14%	1/4%	0/0%
g. Developing record-keeping systems?	2/7%	19/68%	6/21%	1/4%	0/0%
h. Developing verification procedures?	3/11%	19/68%	5/18%	1/4%	0/0%
i. Developing a generic HACCP model?	6/21%	19/68%	3/11%	0/0%	0/0%

**WORKSHOP EXPECTATIONS**

9. Did the workshop accomplish what you expected? Yes: 26/96% No: 1/4%  
Please explain.

**(18 comments)**

- (6) Yes. The workshop gave us a basic understanding of the principles and concepts necessary to formulate HACCP plans and to set up programs in our own plants. It provided a good working knowledge of HACCP and reinforced application of the HACCP approach. It made clear a viable method to be used in a slaughter situation to identify and control hazards.
- (3) Yes. The workshop accomplished what I expected and maybe more. I was quite surprised at the good and positive attitudes of the HACCP team and the help they and other FSIS personnel provided. The workshop was well-led and input was encouraged by all. Good communicative effort by all group members.
- (3) Yes. A generic HACCP plan that is general enough to fit into any plant was developed. The workshop was very beneficial for slaughtering use, but the same basics can be used to develop all products.
- (2) Yes. The development of the HACCP model was done very systematically. This helped in clarifying the process. The system of computer-generated handouts was very helpful.
- (1) Yes. Since a HACCP program needs to be plant-specific, we did the best we could in this workshop at a generic level.
- (1) Yes. Th 's was much much better than the cooked sausage workshop.
- (1) Yes. My expectations were to understand what USDA/FSIS's intent is in regard to HACCP and to witness the development of a HACCP model.
- (1) No. Although I understand a little better how the process works, I expected to gain more from this workshop.

10. Did the individual sessions accomplish what you expected? Please explain.	Yes for All: 21/75%	Yes for Some: 7/25%	No for All: 0/0%
---	------------------------	------------------------	---------------------

(9 comments)

- (3) Yes for All. We accomplished all goals and developed a generic HACCP plan that is very helpful to take back to our plants.
- (2) Yes for All. Material was covered in enough depth to further understanding of the process. The sessions clarified the thought processes for writing a HACCP plan.
- (2) Yes for All. Great group discussions— both large group and small group— good mix/variety. Joint decisions covered most aspects of a subject.
- (1) Yes for All. Some of the sessions were too stretched out, but this was mainly due to the Participants themselves and not to the facilitators.
- (1) Some. The Subject Matter Expert for my small group work was very well-informed and a helpful source of information. A lot of seemingly unclear situations were clarified.

COMMENTS

11. Methods other than a workshop format could have been employed to develop a generic HACCP model. Examples of options include an FSIS request for (a) comments on an FSIS-generated model published in the Federal Register; (b) development of a model by selected academicians; or (c) submission to FSIS of independently-generated models. Please indicate your preference for one of the above-listed options, or describe any others not mentioned that you would like to be considered by FSIS in the future.

(23 comments)

Concerning use of a workshop format:

- (8) This workshop is the best way. I'm not in favor of any of the above methods. The workshop method was most effective: direct participation was an integral part of the program development. Industry and FSIS both understand the problems and need to work together setting up programs that work for industry and the consumer. Programs like this should not be dictated. Input from both industry and FSIS is the best option. Methods other than the one used would have been extremely time-consuming and likely ineffective. This method was the best in that industry had enormous involvement. I prefer the method that was used because it allowed industry personnel to submit their views, discuss solutions, and solve problems with the help and cooperation of the FSIS HACCP Special Team.
- (3) I like the workshop format. This was the best possible format that could have been used. The workshop format is excellent and should be maintained as is.
- (1) Independently-generated models may aid in visual comprehension of the HACCP plan. Suggest independent models be combined with the workshop.

Concerning other options:

- (6) Option (C): submission to FSIS of independently-generated models.
- (2) Option (B): development of a model by selected academicians.
- (1) Option (A): comments on an FSIS-generated model published in the *Federal Register*.



(1) Concerning seeking comments on published models, as in Option (A), people normally don't take time to comment.

(1) Get more opinions through mailing.

12. What was *most* beneficial to you about the workshop?

(31 comments)

(10) Small groups. Breakout sessions. Working in the small groups and doing only small segments at a single time was most beneficial. One-on-one— presentations in small groups. Small groups actually had better discussions than the large group on the specifics of the program. More came out in the small groups— more open discussion. Good effort by facilitators to assist group members in understanding the HACCP plan. Gave us better participation by everybody.

(5) Working with other people in the industry. Bringing together of industry representatives. Working together with other operations people and feeling that we have a part in developing the program. Interaction of industry representatives on self-regulation; interchange of ideas.

(4) Interaction with FSIS personnel and Participants from industry. Being involved with the whole development process rather than just the end result. Development of the plan, meeting and talking to other industry members as well as USDA officials. Having input from the industry is the best step FSIS could have made— we all feel we have had input into it.

(4) Free-flowing large group discussions and lots of brainstorming allowed many viewpoints to be heard. The comments made by FSIS representatives and industry Participants during the many discussions on the HACCP model.

(4) A clearer understanding of the HACCP goals and of the process involved in HACCP. I finally understand the principles of HACCP and the use of the decision tree. Learning how to use a HACCP program.

(2) The way that everyone came to agreement on the Critical Control Point issues even after some heated discussion. Input could be made even if it was not accepted.

(1) The process flow diagram was set up ahead of time.

(1) The computer overlays and printouts.

13. What was *least* beneficial to you about the workshop?

(20 comments)

(4) Nothing. Everything was beneficial.

(3) Lots of bickering over unimportant issues, but I guess that would be expected in large groups. When we got stuck in large group sessions the facilitator should have moved the group along. FSIS needs to be more advisory in their role.

(2) Redundancy and getting bogged down in interpretation of the English language. A lot of unnecessary repetition.



- (2) Lectures were boring. Lecturers were ineffective in keeping an attentive audience. Though the presenters are very well-informed on the material they present, they need to make the talks more interesting. It's hard for an audience to stay focussed on straight-forward talking with no change in pattern. Add an occasional joke, short story.
- (2) Explanations of principles. The long dissertations covering book matter.
- (1) An hour or so should have been devoted at the start of the workshop to better explain procedures and goals.
- (1) Some instruction or explanation concerning the reading material would have helped.
- (1) Developing the work stations was least beneficial because I think they need to be plant-specific.
- (1) The 3-day format; workshop could be completed in 2 days.
- (1) The large amount of handouts at the beginning of the program.
- (1) Not having cokes at the morning breaks.
- (1) The location: downtown was very expensive for everything from parking to food, etc.

14. Please comment on the methods used in this workshop to: (1) assess hazards and identify preventive measures; and (2) identify CCPs through use of a decision tree.

(30 comments)

Concerning (1)— assessing hazards and identifying preventive measures:

- (2) Very useful as far as identifying hazards. This is a very good method to identify and assess hazards.
- (2) Large group discussions were great for these two elements. Brought out many different ideas from a large segment of the pork slaughter industry and different points of view.
- (1) Well-explained.
- (1) Excessive FSIS involvement.

Concerning (2)— identifying CCPs through use of a decision tree:

- (4) The decision tree was excellent. It worked well. It very clearly allowed one to determine a Critical Control Point. The decision tree is very simple but effective.
- (3) The decision tree was very useful in establishing a protocol for identifying CCPs. It is a structured format that minimizes generalizations. The decision tree was a good idea that highlighted involvement and repetition of some CCPs, and thus brought about changes for the better.
- (1) Great use of computer overheads made it easy to follow along and pinpoint CCPs.
- (1) The Participants maybe were a little too eager to identify some of the CCPs, but the method was great.
- (1) Acceptable.
- (1) Somewhat confusing at times.

- (1) Is more work and not as much fun, but something that has to be discussed.

Concerning both (1) and (2):

- (7) Excellent. Very good on both. Both were effective methods. Very well-done. I think that enough time (right amount) was spent on it. Enjoyed all the input.
- (3) Facilitators provided too little direction during discussions, which made sessions run very long. I understand that this approach was intentional, but I would have liked to have seen some moderation of this. Example models should have been presented. FSIS knew what they wanted out of this workshop when they started. More detailed guidelines would have shortened time and allowed conversations on other vital topics.
- (1) Adequate and acceptable.
- (1) The methods are useful to aid us in the thought process to accomplish our objectives.

15. Please use the rest of this page to make any additional comments that may help us understand your thoughts about the workshop and improve future activities.

(18 comments)

- (4) Very good workshop. It was handled very well. Thanks. The USDA did an outstanding job of hosting the workshop. It was well-organized and well-orchestrated. All of the facilitators did an excellent job of helping us develop a model without dictating or staying completely noncommittal.
- (3) The workshop was a good forum for discussion. Subject matter is very useful. The workshop was very useful and I am glad to see industry having a part in developing a workable program.
- (2) Experiences from previous workshops allowed USDA to present information and obtain consensus easily. USDA did an excellent job. This approach should be used more.
- (2) FSIS's use of visual aids, computers and microphones was very impressive and added greatly to the program because communication was made very easy.
- (2) Could have cut the size of the workbook considerably by downsizing the material. Too much paper was wasted in making copies of the many individual overheads. Could an outline be put together in 12-point letter-size which could include information from many overheads?
- (1) Workshop could have been completed in 2 days rather than 3.
- (1) Perhaps need evening socials or a brief get-together.
- (1) We must make the generic models proactive in protection.
- (1) Very professional FSIS personnel— maybe a few more than we needed.
- (1) The workshop discussion seemed to be dominated by a few industry representatives.





**SECTION II— OBSERVERS**

**SUMMARY OF OBSERVERS' RESPONSES TO  
EVALUATION QUESTIONNAIRE**



## SUMMARY OF OBSERVERS' RESPONSES<sup>1</sup>

### RESPONDENT CHARACTERISTICS

1. Which grouping below best characterizes your current affiliation?

Trade Association: 1/50%

Other Government: 1/50%

2. If you marked "Meat & Poultry Industry" in Question 1, please indicate all groupings below which best characterize your industry type and the total production volume of your establishment(s). [Low Volume Establishment = 1 - 59,999 lbs. produced/Quarter; Medium Volume Establishment = 60,000 - 1,000,000 lbs. produced/Quarter; High Volume Establishment = more than 1,000,001 lbs. produced/Quarter]

Not applicable.

3. Days attended (mark all that apply): 1 Day: 0/0% 2 Days: 0/0% 3 Days: 1/100%<sup>2</sup>

4. Please check one: Observer: 2 Participant: 0

### HACCP MODEL DEVELOPMENT

	<u>Very Successful</u>	<u>Successful</u>	<u>Somewhat Successful</u>	<u>Not Successful</u>	<u>Very Unsuccessful</u>	<u>Don't Know</u>
5. Overall, how successful was the workshop in:						
a. Identifying Critical Control Points (CCPs)?	1/50%	1/50%	0/0%	0/0%	0/0%	0/0%
b. Determining critical limits for each CCP?	0/0%	2/100%	0/0%	0/0%	0/0%	0/0%
c. Developing monitoring plan activity for identified CCPs?	1/50%	1/50%	0/0%	0/0%	0/0%	0/0%
d. Developing corrective action approaches?	0/0%	2/100%	0/0%	0/0%	0/0%	0/0%
e. Developing record-keeping systems?	0/0%	2/100%	0/0%	0/0%	0/0%	0/0%
f. Developing verification procedures?	0/0%	2/100%	0/0%	0/0%	0/0%	0/0%
g. Developing a generic HACCP model?	1/50%	1/50%	0/0%	0/0%	0/0%	0/0%

**NOTE:** Results are presented as number of responses/% of responses for each category.

1 Due to the small number of observers, percentages may be misleading.

2 Only 1 of the 2 respondents answered this question.



# DESIGN AND OPERATION OF WORKSHOP

	<u>More than Adequate</u>	<u>Adequate</u>	<u>Marginally Adequate</u>	<u>Inadequate</u>	<u>Very Inadequate</u>	<u>Don't Know</u>
6. Please rate the workshop in terms of:						
a. Development of a generic product/process description	1/50%	1/50%	0/0%	0/0%	0/0%	0/0%
b. Development of process flow diagram	2/100%	0/0%	0/0%	0/0%	0/0%	0/0%
c. Organization of the three days	0/0%	2/100%	0/0%	0/0%	0/0%	0/0%
d. Use of small "break-out" groups	1/50%	1/50%	0/0%	0/0%	0/0%	0/0%
e. Reporting of small "break-out" group activities to entire group	0/0%	1/100%	0/0%	0/0%	0/0%	0/0% <sup>3</sup>
f. Opportunity for input from Observers	0/0%	2/100%	0/0%	0/0%	0/0%	0/0%
g. Opportunity for input from Participants	1/50%	1/50%	0/0%	0/0%	0/0%	0/0%
h. Effectiveness of facilitators in helping achieve workshop objectives	1/50%	1/50%	0/0%	0/0%	0/0%	0/0%
i. Effectiveness of subject matter experts in helping achieve workshop objectives	0/0%	2/100%	0/0%	0/0%	0/0%	0/0%
j. Effectiveness of group leaders in helping achieve workshop objectives	1/50%	1/50%	0/0%	0/0%	0/0%	0/0%
k. Effectiveness of group reporters in helping achieve workshop objectives	1/50%	0/0%	0/0%	0/0%	0/0%	1/50%
l. Completion of workshop objectives.	1/50%	1/50%	0/0%	0/0%	0/0%	0/0%
	<u>Strongly Agree</u>	<u>Agree</u>	<u>Neutral</u>	<u>Disagree</u>	<u>Strongly Disagree</u>	<u>Don't Know</u>
7. Please indicate your degree of agreement with each of the following statements.						
a. The HACCP model developed by the workshop participants is a viable framework for the industry to implement on a test basis.	0/0%	1/50%	1/50%	0/0%	0/0%	0/0%
b. The workshop format offers a sound approach for producing a generic HACCP model for other meat and poultry products.	0/0%	2/100%	0/0%	0/0%	0/0%	0/0%
c. The presence of Observers was beneficial to the workshop.	1/50%	0/0%	0/0%	0/0%	0/0%	1/50%
d. The workshop resulted in a useful generic HACCP model developed by industry participants.	1/50%	0/0%	1/50%	0/0%	0/0%	0/0%

3 Only 1 of the 2 respondents answered this question.

WORKSHOP MATERIALS (Observers: Please skip Question 8 and continue with Question 9.)

- |  | <u>Very<br/>Useful</u> | <u>Useful</u> | <u>Somewhat<br/>Useful</u> | <u>Not<br/>Useful</u> | <u>Not At All<br/>Useful</u> |
|--|------------------------|---------------|----------------------------|-----------------------|------------------------------|
| 8. Overall, how useful were the written materials for: |                        |               |                            |                       |                              |
| a. Assessing finished product hazards?                 |                        |               |                            |                       |                              |
| b. Assessing ingredient hazards?                       |                        |               |                            |                       |                              |
| c. Determining placement of CCPs on flow diagram?      |                        |               |                            |                       |                              |
| d. Determining critical limits for each CCP?           |                        |               |                            |                       |                              |
| e. Developing assigned CCP monitoring plan?            |                        |               |                            |                       |                              |
| f. Developing corrective action approaches?            |                        |               |                            |                       |                              |
| g. Developing record-keeping systems?                  |                        |               |                            |                       |                              |
| h. Developing verification procedures?                 |                        |               |                            |                       |                              |
| i. Developing a generic HACCP model?                   |                        |               |                            |                       |                              |
- OBSERVERS WERE INSTRUCTED TO  
SKIP THIS QUESTION.

WORKSHOP EXPECTATIONS

9. Did the workshop accomplish what you expected? Yes: 2/100% No: 0/0%  
Please explain.

(1 comment)

- (1) Yes. The workshop completed the development of a generic model. Only once it is implemented will it be known how practical the model is to use.

10. Did the individual sessions accomplish what you expected? Please explain. Yes for All: 2/100% Yes for Some: 0/0% No for All: 0/0%

No comments.

COMMENTS

11. Methods other than a workshop format could have been employed to develop a generic HACCP model. Examples of options include an FSIS request for (a) comments on an FSIS-generated model published in the Federal Register; (b) development of a model by selected academicians; or (c) submission to FSIS of independently-generated models. Please indicate your preference for one of the above-listed options, or describe any others not mentioned that you would like to be considered by FSIS in the future.

(1 comment)

Concerning use of a workshop format:

- (1) Perhaps a workshop (industry/government) to debate and compare models developed by all three methods listed above might be useful.

Concerning other options:

No comments.

12. What was *most* beneficial to you about the workshop?

(2 comments)

- (1) Gathering of industry and FSIS on a mutual basis and letting industry take the lead in developing a model plan.
- (1) Observing the debate between the various Participants.

13. What was *least* beneficial to you about the workshop?

No comments.

14. Please comment on the methods used in this workshop to: (1) assess hazards and identify preventive measures; and (2) identify CCPs through use of a decision tree.

Concerning (1)— assessing hazards and identifying preventive measures:

No comments.

Concerning (2)— identifying CCPs through use of a decision tree:

No comments.

Concerning both (1) and (2):

(1 comment)

- (1) These methods produced a result. The usefulness of the end product will not be known until it is implemented but there doesn't seem to be another viable alternative for development.

15. Please use the rest of this page to make any additional comments that may help us understand your thoughts about the workshop and improve future activities.

No comments.



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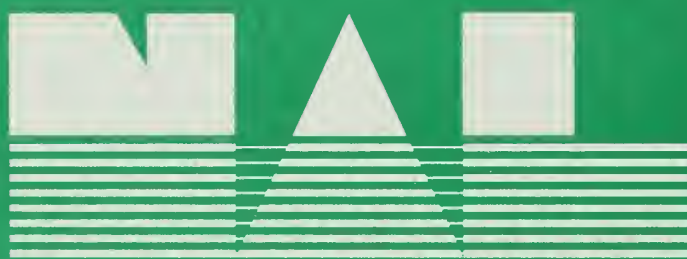


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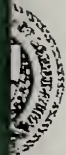
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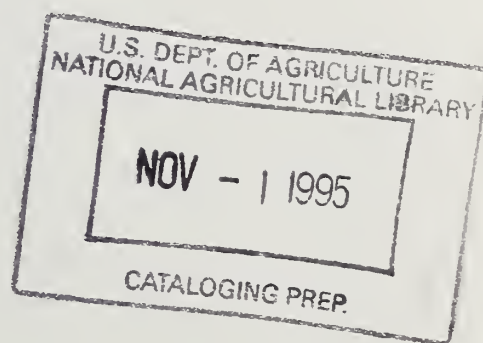
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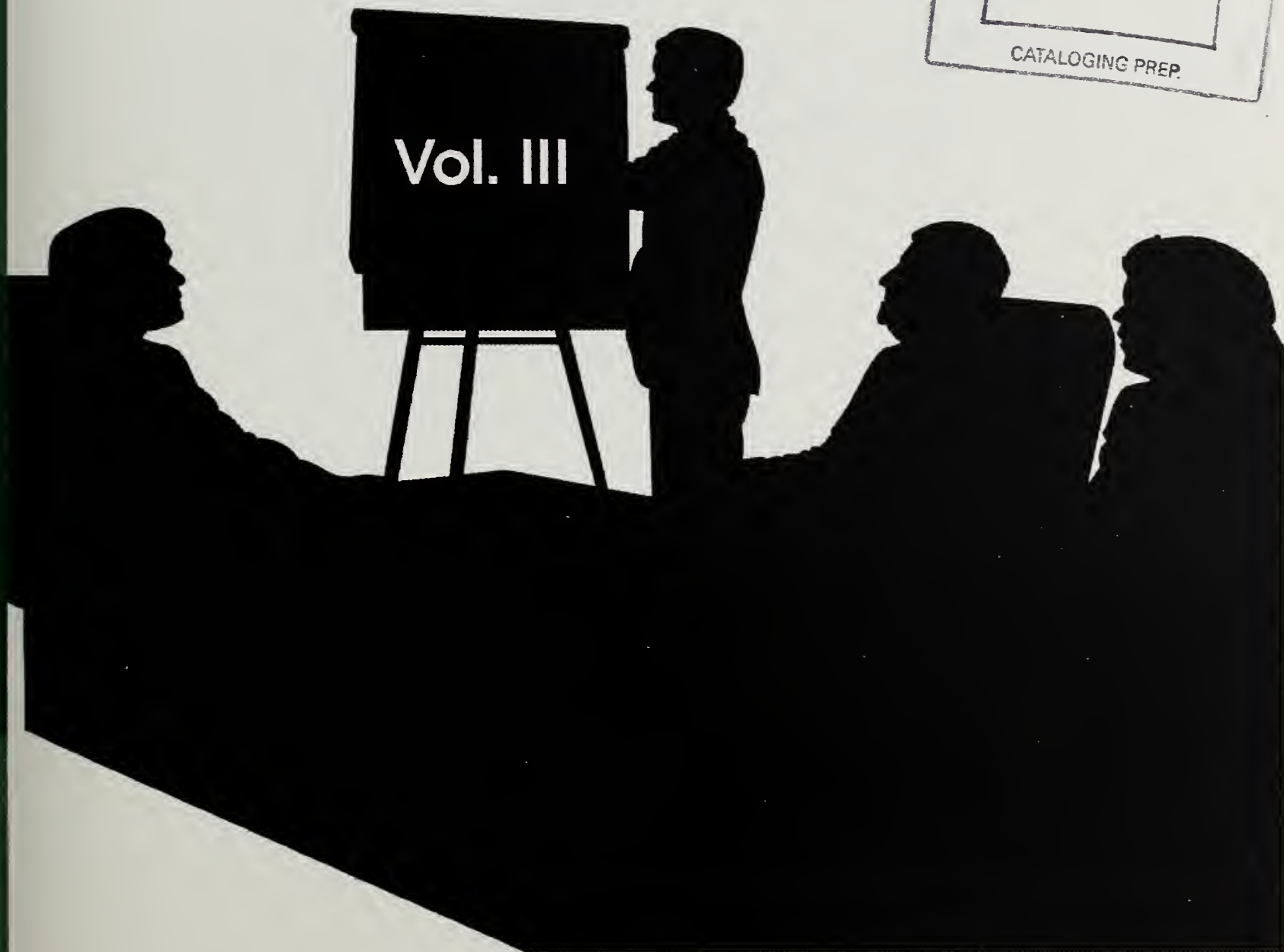
April 1994

# HACCP Workshops Report

## Overview of the five Workshop Steering Committee Reports



**Vol. III**



In January 1990, the Food Safety and Inspection Service (FSIS) of the U.S. Department of Agriculture initiated efforts to determine how to implement the Hazard Analysis and Critical Control Point (HACCP) system in regulated meat and poultry plants. HACCP is a process control system that identifies "critical" points in the food production process that should be controlled to prevent food safety hazards (i.e., microbiological, chemical, and physical hazards) from occurring.

Agency activities included consultations and public hearings to explain HACCP and the Agency's efforts, workshops to develop model HACCP plans, in-plant testing to trial the specific plant HACCP plans at nine volunteer plants, and an assessment of the overall experience of the Agency.

A series of reports will be written on the various phases and activities undertaken by the Agency and participants during the study. This is one of the reports. For further information concerning FSIS HACCP activities contact:

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# **HACCP WORKSHOPS REPORT**

## **Overview of the five WORKSHOP STEERING COMMITTEE REPORTS**

*Vol. III*

*United States Department of Agriculture*  
Food Safety and Inspection Service  
Policy Analysis Unit  
Washington, D.C. 20250  
February 1994



## SUMMARY

The Food Safety and Inspection Service (FSIS), USDA, initiated a study to determine how to implement HACCP\* into meat and poultry inspection operations. As part of the study, five workshops were held with industry to develop five model HACCP plans for specific products and processes. The five products/processes chosen were Refrigerated Foods, Cooked Sausage, Poultry Slaughter, Ground Beef, and Swine Slaughter. Three of the generic models developed at the workshops (Refrigerated Foods, Cooked Sausage, and Poultry Slaughter) were tested in three volunteer plants each for a total of nine pilot plants.

At the completion of each workshop, a steering committee of industry members was chosen to fine-tune the generic model developed at the workshop. In addition, the committee would represent industry in altering the generic model if needed after the development and testing of plant-specific HACCP plans in the pilot plants.

An examination of the five steering committees showed that the committees played an important role by fine-tuning the HACCP models and ensuring their consistency.

Steering committee members said industry representatives were needed to complete any tasks left unfinished at the workshops.

Steering committee members said industry representatives were needed as communication links between industry and FSIS staff involved with HACCP implementation.

Steering committee members said industry representatives needed to be responsible for adding (or deleting) critical control points (CCPs) as necessary after a generic model developed at a workshop had been matched to plant-specific HACCP plans.

Steering committee members said industry members wanted to know that industry representatives were responsible for "wordsmithing" the generic industry models developed at the workshops if they were going to "claim ownership" of the models.

One outcome of the development of HACCP steering committees was increased communication among industry members and an increase in HACCP related activities by the committee members' companies.

\* Hazard Analysis Critical Control Points (HACCP) is a process control system that identifies "critical" points in the food production process that should be controlled to prevent food safety hazards from occurring.



The first part of the report deals with the general conditions of the country, the climate, the soil, and the vegetation. It also mentions the principal occupations of the population, which are agriculture and stock raising.

The second part of the report describes the principal cities and towns of the country, and gives some details of their history and present condition. It also mentions the principal industries of each place.

The third part of the report gives a description of the principal rivers and lakes of the country, and mentions the principal cities and towns situated on them. It also mentions the principal industries of each place.

The fourth part of the report gives a description of the principal mountains and hills of the country, and mentions the principal cities and towns situated on them. It also mentions the principal industries of each place.

The fifth part of the report gives a description of the principal forests of the country, and mentions the principal cities and towns situated on them. It also mentions the principal industries of each place.

The sixth part of the report gives a description of the principal minerals of the country, and mentions the principal cities and towns situated on them. It also mentions the principal industries of each place.

The seventh part of the report gives a description of the principal animals of the country, and mentions the principal cities and towns situated on them. It also mentions the principal industries of each place.

The eighth part of the report gives a description of the principal plants of the country, and mentions the principal cities and towns situated on them. It also mentions the principal industries of each place.

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- B. Cooked Sausage Steering Committee Responses to Questionnaire
- C. Poultry Slaughter Steering Committee Responses to Questionnaire
- D. Ground Beef Steering Committee Responses to Questionnaire
- E. Swine Slaughter Steering Committee Responses to Questionnaire



## **I. INTRODUCTION**

### **Evaluation**

To describe the role of steering committees as part of the workshop method for developing generic model HACCP\* plans for meat and poultry products.

### **Background**

In January 1990, the Food Safety and Inspection Service (FSIS) began the HACCP Implementation Study to determine how to implement Hazard Analysis Critical Control Points (HACCP) into meat and poultry inspection operations. As part of the study, five workshops were held with industry to develop model HACCP plans for specific products and processes. Those chosen included Refrigerated Foods, Cooked Sausage, Poultry Slaughter, Ground Beef, and Swine Slaughter. Three of the generic models developed at the workshops (Refrigerated Foods, Cooked Sausage, and Poultry Slaughter) were tested in three volunteer plants each for a total of nine pilot plants.

### **Steering Committees**

A steering committee of five industry representatives was established at the completion of each of the five HACCP workshops. The representatives were chosen from the working groups that had been formed during the workshops. Each steering committee selected a chairperson and sometimes a co-chairperson to facilitate the transactions of the committee.

Steering committees served three functions:

- Fine-tuned the model HACCP plan for that particular product/process category for consistency and readability.
- Addressed any unresolved issues from the workshop.
- Represented industry in altering the generic model if it needed to be changed following development of plant-specific plans in the volunteer plants.

### **Special Team**

The Special Team, consisting of seven FSIS staff from headquarters and field, was responsible for the implementation of HACCP Study activities and data collection activities including workshops, in-plant training, and pilot plant tests. If the Special Team determined after working with the pilot plants that the generic model developed at a workshop needed to be changed, then the Special Team would notify the steering committee chairperson for that product so the committee could reconvene to discuss the problem. Dr. Nathaniel Clark of the HACCP Special Team was steering committee coordinator and served as interface between the steering committees, the Special Team, and other FSIS HACCP activities. He gave the committees their charge from the workshops and explained their duties. The committees sent their completed models through him to the Special Team.

\* Hazard Analysis Critical Control Points (HACCP) is process control system that identifies "critical" points in the food production process that should be controlled to prevent food safety hazards from occurring.

## Methodology

The Policy Analysis Unit (PAU), FSIS, asked steering committee members about the role of HACCP steering committees as part of an examination of the HACCP workshops.

Three questionnaires were developed to address steering committee activities over the life of the committees. Interview questions addressed topics concerning the roles and tasks of the steering committee, the amount of time and effort spent by committee members, and direct costs incurred by industry for their representatives on the committee.

- The first questionnaire focused on steering committee activities *during the HACCP workshop*.
- The second questionnaire was designed to collect information on steering committee activities for the period of time *between the HACCP workshop and the pilot plant on-site visits*.
- The third questionnaire requested information on steering committee activities *during and after the pilot plant on-site visits*. It also addressed the role of the steering committee in general.

The questionnaires were administered either in person or by telephone to the FSIS steering committee coordinator, steering committee chairpersons, and steering committee members. Interviews with the steering committee chairperson and members from each workshop took place after their generic model was finalized. The steering committee coordinator was interviewed after each workshop and periodically to determine the status of the various committees, if they had completed fine-tuning their model or if additional interviews with the steering committees would be needed, depending on whether generic models had to be changed following implementation in the pilot plants.

## Report Plan

First, this report presents a description of each of the HACCP steering committees in the following five chapters. The final chapter provides a summary and the committees' recommendations for future steering committee activities. Responses to the three questionnaires administered to each committee are found in the Appendices.



## II. REFRIGERATED FOODS STEERING COMMITTEE\*

### Introduction

The Refrigerated Foods Workshop was held in Baltimore, Maryland, on February 26-28, 1991. The particular process under consideration was cooked and assembled products. At the completion of the workshop after the generic model had been completed, the following persons were chosen by the workshop participants to represent them on the steering committee:

Martin Mitchell, Chairman

Mike Ensley

Margaret Gerwin

John Humber

Edward Krysinski

Salad Mfg. Association

Tyson Foods, Inc.

Stouffer Foods (Nestle USA)

Kraft General Foods, Inc.

Campbell Soup Company

The Refrigerated Foods Steering Committee was charged with the following responsibilities:

1. Fine-tune the DRAFT generic model developed at the workshop.
2. Address an issue raised in the workshop on whether "seeding" (spike verification) should be identified as a verification procedure in the HACCP model. ["Seeding" involves sending a product with a known microbiological count through a process to see if the controls in place will find it.]
3. Address whether "receiving" should be a critical control point (CCP).
4. Address an issue raised regarding the applicability of HACCP Principle #1 concerning Risk Assessment and Risk Categories. Workshop participants had questioned the value of assigning a risk category to ingredients and finished product.

### Steering Committee Activities

The Refrigerated Foods Steering Committee held an organizational meeting at the end of the workshop. At that time they selected a chairman and assigned tasks to members. The committee met in Washington, D.C. on March 19, 1991 to polish the DRAFT generic model and discuss the other assigned tasks. The completed generic model was sent to the HACCP Special Team on April 25, 1991.

The issue of "seeding" (spike verification) was resolved by retaining it in verification procedures under CCP #7, assembling components into a package. This was not considered a substantive change to the generic plan by the HACCP Special Team.

Initially, the issue of whether "receiving" should be a CCP was resolved by the committee adding a paragraph at the end of the flow diagram of the plant's process stating their position that all HACCP plans should consider including "receiving" as a CCP depending on the ingredient(s) and its suppliers. In November 1991, the HACCP Steering Committee Coordinator asked the steering committee to reconsider "receiving" as a CCP after all three pilot plants included it in their plant-specific plans.

\*See Appendix A for more detailed information.



The steering committee discussion on the applicability of HACCP #1 concerning Risk Assessment and Risk Categories resulted in a communication through the HACCP Special Team to the National Advisory Committee on Microbiological Criteria For Food (NACMCF). Since that time, NACMCF has rewritten Principle #1 using a decision tree method to determine hazard levels.

### Findings

The findings from the questionnaires administered to the committee members and coordinator supported the notion that the steering committee played a necessary role fine-tuning the generic model so that it was a consistent, unified document. Committee members also stated that as an industry group, they developed a generic model more suitable to industry.

They expressed that the expense of being a part of the steering committee was not a burden to their companies although they were concerned that it might be to smaller companies. Their companies paid the expenses for the Washington meeting, telephone, and fax costs. Their companies were very supportive of their involvement.

Members of this committee were the only ones to express a concern that there was no FSIS representative on the committee.

## II. COOKED SAUSAGE STEERING COMMITTEE\*

### Introduction

The Cooked Sausage Workshop was held in Fort Worth, Texas, on May 21-23, 1991. At the completion of the Cooked Sausage Workshop, the following persons were chosen by the workshop participants to represent them on the steering committee:

William H. Sveum, Chairman  
Dr. Mohammad F. Azam  
J. Patrick Hadden  
Kathleen L. Hanigan  
Mike Robach

Oscar Mayer  
Thorn Apple Valley, Inc.  
Webb Technical Group  
Farmland Foods, Inc.  
Continental Grain Co.

The Cooked Sausage Steering Committee was charged with fine-tuning the DRAFT generic model developed at the workshop. No unresolved issues were raised at the workshop.

### Steering Committee Activities

The Cooked Sausage Steering Committee did not meet separately at the workshop to choose a chairperson or delegate assignments. Workshop participants had indicated a desire that they all be present when the duties of the steering committee and the questionnaire were presented. Steering committee members were introduced and William Sveum volunteered to serve as chairman. A PAU analyst presented a synopsis of the questionnaire to the entire workshop at the request of the HACCP Special Team Leader and the workshop participants.

The committee held four conference calls to fine-tune the generic model. Originally, the committee wanted to revise the generic model developed at the workshop. Members stated it contained too many CCPs and several sanitation issues had been left unresolved. The Director of the HACCP Special Team told committee members they could only fine-tune the workshop-generated model. However, they could develop and submit an alternative model. Committee members decided to develop an alternative model which they prepared during their conference calls.

The committee submitted the fine-tuned workshop model and the alternative model to the HACCP Special Team on September 5, 1991. The Special Team forwarded the alternative model to the HACCP office for review.

### Findings

The findings from the questionnaires administered to the committee members and coordinator supported the notion that steering committees were an essential part of the workshop process. They were most useful to industry in making the wording of the HACCP model uniform to avoid misinterpretations and ensure consistency.

\*See Appendix B for detailed information.

However, committee members also were frustrated because they thought that as workshop representatives they should be able to make substantive changes in the generic model. They complained that their role was limited by only being able to "wordsmith" the model. They would have liked the role of the committee to be expanded to handle issues they felt were unresolved.

None stated that their participation had entailed much cost to their companies. The committee's companies paid for the conference calls, faxes, and other telephone calls. Members spent about 16 hours either working individually on their assignments or participating on conference calls. Their companies were supportive of their involvement.



## **IV. POULTRY SLAUGHTER STEERING COMMITTEE\***

### **Introduction**

The Poultry Slaughter HACCP Workshop was held at Atlanta, Georgia, on August 27-29, 1991. At the completion of the workshop, the following persons were chosen by the workshop participants to represent them on the steering committee:

Mike Gregory, Chairman  
James L. Ayres  
Leo C. McKee  
Steve Mitchell  
Norbert D. Neal

Hudson Foods Inc.  
Gold Kist Inc.  
O.K. Foods, Inc.  
Con Agra Broiler Co.  
Louis Rich Co.

The Poultry Slaughter Workshop Committee was charged with fine-tuning the DRAFT generic model developed at the workshop. In addition, "notes from industry" attached to the generic model concerning chemical residues and chlorination were to be addressed by the committee.

### **Steering Committee Activities**

The Poultry Slaughter Steering Committee held a brief organizational meeting at the conclusion of the workshop. Mike Gregory was selected chairman.

The committee did not meet again as a committee either in person or via conference call. Each member was assigned one of the columns in the generic model such as "Critical Limits" to fine-tune. When their corrections were completed, members faxed them to the chairperson who assembled their drafts and returned the unified document for comments. The final draft was submitted to the HACCP Steering Committee Coordinator on November 15, 1991.

The steering committee chairman addressed the "notes from industry." In his submittal letter to FSIS, he acknowledged the notes and endorsed them as recommendations to FSIS. The chemical residue note was an acknowledgement that the poultry industry already has in place effective preventative and monitoring programs in the live production area. Inclusion of chemical residues as a CCP at slaughter would be a duplication of effort and less effective. The chlorination note was a series of recommended check points to be considered as the CCP's regarding chlorination of the chillers are implemented during the pilot plant studies.

### **Findings**

The findings from the questionnaires administered to the committee members and coordinator supported the notion that it was important for industry to participate on the steering committee.

\*See Appendix C for detailed information.

Members spent about four to twelve hours on their assignments. Cost to their companies was in lost hours and cost of telephone calls and faxes. Their companies were supportive and were beginning to use HACCP principles in their plants.

Most members noted their role was to fine-tune the generic model and adhere strictly to the desires of the workshop participants. On the other hand, one member felt restricted by that role and would have liked to have been able to make alternations to the model.

Members were happy with the method they used, i.e. being assigned columns to "wordsmith model. The chairman, however, thought that it might have been better if he had gotten the group together for a meeting or at least a conference call to shorten the process.



## V. GROUND BEEF STEERING COMMITTEE\*

### Introduction

The Ground Beef HACCP Workshop was held in Phoenix, Arizona, on December 3-5, 1991. At the completion of the workshop, the following persons were chosen by the workshop participants to represent them on the steering committee:

Ryan Englund, Chairman  
William R. Lloyd, Co-Chairman  
Kofi Boaitey  
Karen Procheniewski  
John Southerland

Jac Pac Foods  
Monfort, Inc.  
Carlkarcher Enterprises, Inc.  
Wis-Pak Foods  
Portion-trol Foods, Inc.

The Ground Beef Workshop Committee was charged with fine-tuning the DRAFT generic model developed at the workshop. No unresolved issues were raised at the workshop.

### Steering Committee Activities

The Ground Beef Steering Committee held an organizational meeting at the completion of the workshop. A committee chairman and co-chairman were selected and assignments were made. Committee members worked on their assignments and faxed their changes to the chairperson. The committee held a conference call on December 19, 1991, to review the changes they had made and faxed to the chairman. He prepared a draft and sent members a final copy for review.

The committee submitted its model to the HACCP Special Team dated December 19, 1991. Since no ground beef processes were pilot tested using this model, the committee's work was essentially completed within a few weeks.

### Findings

The findings from the questionnaires administered to the committee members and coordinator supported the notion that the chairman stressed the need to complete steering committee activities promptly. Therefore, committee members felt pressured to get the job done. They worked efficiently on their own and cooperated well as a team. They stated that they had benefitted by the work of previous committees.

Members spent from two to eight hours on steering committee activities. None felt it was a financial burden to their companies as the only expenses were telephone calls and faxes. Their companies were supportive of their participation. In fact, three members said their companies either would like to have been a pilot plant, or were embarking on a HACCP project.

\*See Appendix D for detailed information.



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## VI. SWINE SLAUGHTER STEERING COMMITTEE\*

### Introduction

The Swine Slaughter HACCP Workshop was held in Minneapolis, Minnesota, on March 31- April 2, 1992. At the completion of the workshop, the following persons were chosen by the workshop participants to represent them on the steering committee:

Kathleen L. Hanigan, Chair  
Ellen L. Graber, Co-Chair  
Paul T. Conner  
Kirk Jones  
Bob Neubauer

Farmland Foods, Inc.  
Thorn Apple Valley  
IBP  
Monfort, Inc.-Pork Division  
Johnsonville Foods

The Swine Slaughter Workshop Committee was charged with fine-tuning the DRAFT generic model developed at the workshop. Committee members were asked to address as addenda to the model issues of pesticides and antibiotic residues and also organic acid sanitizing systems for microbial reduction.

### Steering Committee Activities

The Swine Slaughter Steering Committee held a brief organizational meeting at the completion of the workshop. A committee chair and co-chair were selected. One committee member volunteered to write the addenda for the committee to address during their conference calls. The chairman set up a conference call for April 22, 1992, during which the committee discussed each step and voted on any changes. Then, the chair faxed members a draft of the changes which they discussed at another conference call on May 6, 1992. Shortly afterwards, the chair submitted their model to the HACCP Special Team, dated May 7, 1992, and the addenda written by Kirk Jones and reviewed by the committee.

The addendum on pesticides and antibiotic residues urged cooperation among regulatory agencies, swine producers and packers to reduce the chemical residue hazard and listed ways to accomplish the reduction. The addendum on organic acid sanitizing systems suggested that although these systems were no substitute for Good Manufacturing Practices, they would be useful as a means of preventing bacterial growth during and after the slaughter process.

On June 12, 1992, the Steering Committee Coordinator informed the chair that some footnotes about operational sanitation needed to be incorporated into the model. The chair did this and notified the steering committee of her action. The committee's work was then completed as there were no swine slaughter pilot plants using this model.

### Findings

The findings from the questionnaires administered to the committee members and coordinator supported the notion that the committee's role was to fine-tune the generic model for consistency and to eliminate any wording that would indicate a specific method of control must be used at a CCP.

\*See Appendix E for detailed information.

Members spent from three to twenty hours working on steering committee business. The only expense to their companies other than lost employee hours was the cost of the conference call, faxes, and other telephone calls. Their companies were supportive of their participation. At least one company plans to develop its own HACCP plan.

One member suggested that the steering committee should become a standing committee which would act as a forum for dealing with industry-wide issues.



## VII. SUMMARY

### Introduction

Industry steering committees were established after each HACCP workshop to refine the generic model created at the workshop, to make any changes in the model following testing in the pilot plants, and to address any unresolved issues from the workshops. The committee reported to the Special Team coordinator who acted as liaison between the committee and the HACCP office and sent a letter thanking the committee when their work was completed.

This chapter summarizes the activities of all the steering committees. Topics covered include the composition of the committees, cost to industry of steering committee participation, steering committee roles, and steering committee operation. Finally, the chapter provides comments and makes recommendations based on the findings.

### Steering Committee Composition

Working groups at each workshop chose one of their members to serve on the steering committee for that product/process. The HACCP steering committee coordinator had suggested to participants that they select only industry participants for steering committee membership. The composition of steering committees differed from workshop to workshop. Some had more large companies represented and some had more small companies; some had representatives from labs and some had trade association representatives. There were no FSIS representatives.

The mix of companies did not seem to affect steering committee work. More important than the company size appeared to be the characteristics of the individuals selected. Industry people who attended the workshop were knowledgeable about the actual processes in the plants and made interested and active committee members. Key to steering committee performance was the effectiveness of the steering committee chairperson.

### Cost to Industry of Steering Committee Participation

Most of the cost to industry was in lost working hours of steering committee members. Members estimated they had spent two to twenty hours on steering committee business. The committee chairpersons spent up to 40 hours. Companies of steering committee members also incurred the cost of secretarial time and incidental costs such as conference calls and faxes.

Committee members were encouraged by their companies to participate on steering committee activities. Most committee members remarked that their companies were glad to have them participate so that the company could be involved in HACCP from the beginning.

## Steering Committee Roles

### *Fine tuning the model*

Most steering committees perceived their role as fine tuning or "wordsmithing" the generic model to be consistent within the model and across the other generic models. "Wordsmithing" the model was the major role all the committees played. Members thought FSIS would have fine-tuned the model differently. Also, they thought that industry would be more likely to accept the model knowing that industry representatives had completed it.

The Cooked Sausage Steering Committee members initially thought their role allowed them to modify the generic model developed at the workshop at their discretion. However, they were discouraged from making substantive changes to the model by the Director of the HACCP Special Team. At subsequent workshops, the steering committee coordinator was careful to stress to steering committee members that their role was to "wordsmith" the model. He told the committees that if substantial changes needed to be made in the generic model, the HACCP Special Team would notify them, but they were not to initiate changes on their own.

### *Changing the generic model during/after the on-sites*

In order for a generic model to be modified, the HACCP Special Team needed to make a request to the steering committee for that product/process. Changes to the generic model were based on what happened during on-site visits to the pilot plants and afterwards when plant-specific plans were matched to the generic model developed at the workshops.

The Refrigerated Foods Steering Committee was the only committee asked to develop new CCPs after the development of plant-specific plans. The HACCP Special Team requested that the committee develop new CCPs for "receiving" as all three pilot plants had included "receiving" as a CCP for meat and non-meat ingredients in their plant-specific plans.

### *Other tasks*

Participants at three workshops asked their steering committees to perform other tasks which could not be completed at the workshop. All these committees made recommendations about their tasks and referred them to the HACCP Special Team for action.

The Refrigerated Foods Steering Committee was charged with addressing the applicability of HACCP Principle #1 and whether "seeding" should be identified as a verification procedure. The committee made recommendations about HACCP Principle #1 which were forwarded to the National Advisory Committee on Microbiological Criteria for Food (NACMCF). "Seeding" was retained in the model.

The Poultry Slaughter Steering Committee was asked to look at several "notes to industry" added to the general model developed at the workshop. The committee approved both the "chemical residue" and the "chlorination" notes as they appeared in the generic model developed at the workshop.

The Swine Slaughter Steering Committee was asked to attach addenda at the end of the generic model concerning pesticides and antibiotic residues and organic acid sanitizing systems for microbial reduction.



One committee member prepared the addenda which the committee revised, approved, and sent to the Special Team.

### Steering Committee Operation

Steering committees were not provided with specific operating procedures. Each committee developed its own. Most committees began with a short organizational meeting at the end of the workshop. The Refrigerated Foods Committee held a one-day meeting in Washington, D.C., to complete its tasks. The Cooked Sausage, Ground Beef, and Swine Slaughter Steering Committees used conference calls to perform their work. The Poultry Slaughter Committee members worked individually and the chairperson compiled their work. In all cases, the chairperson would contact the steering committee coordinator if the committee had questions or to submit the finished model. Committees took between two weeks and three and 1/2 months to complete "wordsmithing" their generic model.

The steering committee coordinator thought the work of a steering committee might be expedited by holding a committee meeting. However, to him what seemed most important to getting the task of refining the model done was a good chairperson who could make assignments and follow up on tasks. For the final two steering committees the coordinator requested that a co-chairperson be selected as he had had difficulties sometimes reaching the chairperson of some committees.

### Recommendations and Comments

According to steering committee members, if, in fact, a workshop format will be used in the future to develop HACCP generic plans, then steering committees will be necessary adjuncts. They felt steering committees would serve a number of important functions for the HACCP workshops:

- Industry members will want to know that industry representatives are responsible for "wordsmithing" the generic industry models developed at the workshops if they are going to "claim ownership" of the models.
- Industry representatives will be needed to complete any tasks left unfinished at the workshops.
- Industry representatives will be needed as communication links between industry and FSIS staff involved with HACCP implementation.
- Industry representatives will need to be responsible for adding (or deleting) CCPs as necessary after a generic model developed at a workshop has been matched to plant-specific HACCP plans.

The financial burden to companies was generally minimal. It consisted of minimal lost employee time and very little direct financial outlay. Companies with steering committee members appeared pleased at the opportunity to be a part of the HACCP development process.



Steering committee members made the following suggestions for alternative methods of developing HACCP plans (see HACCP workshop evaluation report for additional suggestions made by workshop participants):

- FSIS should design HACCP models and place them in the Federal Register for comment.
- For products for which many Partial Quality Control (PQC) plans have been written, generalize from these plans to develop a HACCP model.
- Designate an industry steering committee for each product/process to design a HACCP model.

A serendipitous outcome of the steering committees has been increased communication among industry members. Steering committee members have formed informal networks of contacts to consult when they have questions about HACCP or related matters. One member even suggested that the committees be turned into standing committees to be a forum for industry issues. Others felt the steering committees should have the authority to develop HACCP plans.

Also, committee members, by their participation on the steering committee, have encouraged increased HACCP related activities in their companies. A number of the companies of steering committee members are developing their own HACCP plans based on the generic models.

## **APPENDIX A**

### **REFRIGERATED FOODS STEERING COMMITTEE RESPONSES TO QUESTIONNAIRE**

*Policy Analysis Unit  
February 1994*





*Steering Committee Roles, and Time, Effort, and Costs Expended***Questionnaire I: Steering Committee Meetings during the HACCP Workshop**

This questionnaire focuses on the Steering Committee's activities during the HACCP Model Development Workshop at Baltimore, Md, February 26-28, 1991. A Policy Analysis Unit (PAU) analyst recorded information at the time of the workshop meeting. A PAU analyst also interviewed the FSIS Steering Committee Coordinator, Steering Committee Chairperson, and other committee members.

Q-1. How many times did the Steering Committee meet?

Met once at the end of the Baltimore workshop.

Q-2. Please estimate the number of hours spent relative to each of these meetings concerning actual time in meetings, as well as any preparation time for the meetings.

	<u>Time in Meetings</u>	<u>Preparation Time</u>
Meeting 2/28/91	30 - 60 minutes	none

Q-3. In general, what was the purpose of each meeting? What topics were covered? What was accomplished in each meeting? If the(se) meetings resulted in any decisions, or written documentation, report(s) or other products, please specify and estimate the number of hours expended in these activities that were not included in the response to Question 2 above.

The Refrigerated Foods Steering Committee met on the last day of the three-day workshop. After introductions had been made, the Steering Committee's role was explained by Dr. Nathaniel Clark, FSIS Steering Committee Coordinator, and the chairperson, Martin Mitchell, Salad Mfg. Association, was selected. The committee discussed their charges and assigned tasks to committee members. The tasks were assigned to members according to which issues individual members' working groups had discussed at the Baltimore workshop.

**Committee charges and assignments:**

1. Fine-tune the generic HACCP model. Margaret Gerwin, Stouffer Foods
2. Address whether "seeding" should be a verification procedure. Mike Ensley, Tysons Foods
3. Address HACCP Principle #1. John Humber, Kraft General Foods, Inc.

In addition, the chairperson was to address whether "receiving" should be a critical control point (CCP).

The committee decided to meet in Washington, D.C., shortly after the workshop to continue their work. Initially, FSIS staff were going to meet with the Committee, however this was changed when it appeared that the Coordinator, Dr. Clark; HACCP Special Team Chair, Dr. Leary; a HACCP subject matter expert; and a union representative would have to attend if any FSIS person attended. Thus, a "mini workshop" would have resulted and FSIS thought it best to have the Steering Committee members meet alone. The committee, however, would have liked to have had FSIS input at this meeting.

Q-4. Were there any other Steering Committee activities that occurred during the workshop that haven't been addressed? If yes, please explain.

There were no other activities during the workshop.



*Steering Committee Roles, and Time, Effort, and Costs Expended***Questionnaire II: Steering Committee Contacts between the Workshop and the On-Site Visit**

This questionnaire was designed to collect information on the activities of the Steering Committee for the period of time between the HACCP Workshop and the Pilot Plant On-Site Visit. A PAU Analyst administered this questionnaire by telephone to the FSIS Steering Committee Coordinator, the Steering Committee Chairperson, and members of the Steering Committee.

- Q-1. What activities were undertaken by the Steering Committee during the time period between the Workshop and the On-Site Visit (e.g., meetings, phone calls, etc.)? What topics were covered and what was accomplished by each activity? How much time was spent in each activity? Was there preparation time involved? If so, how much time? Overall, how significant was each issue that was addressed?

Committee members prepared individual assignments from the workshop meeting and circulated drafts before their next meeting to be held in Washington, D. C. Each member spent about 4-6 hours preparing his/her assignment.

The committee met in Washington, D.C. on March 19, 1991, for 4-5 hours to discuss unresolved issues from the Baltimore workshop. Each committee member had had a specific "homework" problem to research and bring to this meeting. By the end of the meeting, all members agreed in principle on the decisions about all issues and all that was left for the individual members to do was to type up the committee's decisions in final form.

About 2 1/2 hours were spent polishing the model. This was lead by Margaret Gerwin who was assigned this task at the first Steering Committee meeting in Baltimore. She had reviewed the model as developed at the workshop and identified the areas/paragraphs that needed to be adjusted to finalize the model. She also brought to the D.C. meeting her suggested wording based on thesaurus research to develop standardization of terminology.

About an hour was spent on "seeding" (spike verification) and "receiving" as a CCP. Spike verification was retained in verification procedures under CCP #7, assembling components into a package. "Seeding" (spike verification) was not a substantive issue. It had been assigned to the Steering Committee in order to stop lengthy unnecessary discussion by a few workshop participants who did not represent the opinions of most participants at the Baltimore workshop. The decision on "receiving" was left at a compromise, in that the committee added a paragraph at the end of the process flow diagram stating their position that all HACCP plans should consider including "receiving" as a CCP depending on prior experience with the ingredient(s) and its supplier. This was not a substantive change to the generic HACCP plan.

About an hour was spent on Principle #1. These were the most significant deliberations of the Steering Committee. They resulted in a communication to the Special Team which was forwarded to FSIS Administrator, Dr. Lester Crawford. He passed their concerns on to the National Advisory Committee On Microbiological Criteria For Food (NACMCF). The NACMCF is currently considering changing Principle #1 of HACCP Principles For Food Production. None of the other Steering Committee deliberations suggested substantial changes in the generic HACCP model.

After the meeting, committee members put documents into final form. All documents had several revisions that were reviewed by members via fax and individual telephone calls.

- Q-2. Was the entire Steering Committee involved in these activities (meetings, telephone calls, report writing, etc.)? Please elaborate. Yes \_\_\_\_\_ No \_\_\_\_\_ Both ☒ X \_\_\_\_\_

All members were actively involved in Steering Committee activities. One member who was on travel status during the period did not have a specific assignment, but participated in the group meetings.



## REFRIGERATED FOODS

All participated at the meeting in D.C. Otherwise, the chairperson coordinated on an individual basis with all members and with the Special Team Steering Committee Coordinator.

Q-3. Was anyone other than Steering Committee members involved in these activities?

Yes X No      (Continue with Q-4)

If yes, please elaborate.

Steering Committee members involved their staff and other participants from the Baltimore workshop in their assignments. M. Gerwin's secretary was involved in polishing the model. J. Humber met with one or two colleagues at Kraft foods who had been at the workshop to help him revise Principle #1. M. Ensley contacted all members of his working group from Baltimore to discuss spike verification.

Q-4. Were there any other Steering Committee activities that occurred during this time period that we haven't discussed?

Yes X No     

If yes, please explain.

The chairperson reviewed and consolidated individual reports from committee members, wrote a report of the Steering Committee's proposed recommendations and sent it to the Steering Committee Coordinator. This report was reviewed by all Special Team members upon receipt. On April 25, 1991, the Steering Committee Coordinator wrote the Steering Committee chairperson stating that the report had been accepted except for four areas where minor changes needed to be incorporated. Revisions were made as requested and the final report dated April 25, 1991, was re-submitted to the Special Team by the chairperson.

The Special Team accepted the committee's final report recommendations. However, because the Special Team believed that the Principle #1 changes proposed by the Steering Committee were beyond the scope of the HACCP Special Team's responsibilities, and conflicted with their application of NACMCF's HACCP definitions in the Agency's HACCP program, this matter was referred to Dr. Crawford, FSIS Administrator, with the request that the Steering Committee's proposal be submitted to NACMCF for deliberation.



*Steering Committee Roles, and Time, Effort, and Costs Expended***Questionnaire III: Steering Committee Contacts during and after the On-Site Visit**

This questionnaire requested information on the Steering Committee's activities during and after the pilot plant On-Site Visit. It also addressed the role of the Steering Committee in general. This instrument was administered by the Policy Analysis Unit by telephone to the FSIS Steering Committee Coordinator, Assistant Coordinator, and all Steering Committee members upon completion of the On-Site Evaluation or after all (if any) refinements/changes to the Generic HACCP Model have been incorporated.

**Steering Committee Activities**

- Q-1. What activities were undertaken by the Steering Committee during and after the On-Site Visit (e.g., meetings, phone calls, etc.)? What was the purpose of each activity? What topics were covered and what was accomplished by each activity? How much time was spent in each activity? Was there preparation time involved? If so, how much time? [N.B.: If no activities occurred, skip to Q-4.]

On November 12, 1991, the FSIS Steering Committee Coordinator submitted a request from the HACCP Special Team to the Steering Committee to include additional CCPs for "receiving" of meat and/or non-meat ingredients. The Special Team made this request because all Refrigerated Foods pilot plants included "receiving" of meat and/or non-meat ingredients as CCPs in their plant-specific HACCP plans. The Steering Committee Coordinator has contacted the Steering Committee chairperson several times since the initial request, but to date there has been no word of committee action.

- Q-2. Was the entire Steering Committee involved in these activities (meetings, telephone calls, report writing, etc.)? Please elaborate. Yes \_\_\_\_\_ No X \_\_\_\_\_
- Q-3. Was anyone other than Steering Committee members involved in these activities? Yes \_\_\_\_\_ No X \_\_\_\_\_ (Continue with Q-4.)  
If yes, please elaborate.
- Q-4. Were there any other Steering Committee activities that occurred during this time period that we haven't discussed? Yes \_\_\_\_\_ No X \_\_\_\_\_  
If yes, please explain.

Steering Committee Role

Q-5. Now that you have served as a member of the Steering Committee, what do you think is the role of the Steering Committee?

"We served as representatives of the industry people at the workshop and finalized the generic model in a manner differently than USDA would have done it."

"We harmonized the generic HACCP model so that it looked like a unified document rather than a patchwork affair put together by several committees."

"We resolved issues which would have been difficult and time consuming for the whole workshop to consider."

Q-6. In brief, what did you do to perform your role?

"As chairperson, I served as a "conduit" of information to and from the FSIS Steering Committee Coordinator rather than as a "repository" of information."

"As a committee member, I contacted other people from my working group at Baltimore to help me prepare my assignment for the Washington meeting. I contacted other committee members by phone and fax. I was an active participant at the Washington meeting."

Q-7. Please note any other comments you would like to offer concerning the role, time and effort of the Steering Committee. Consider usefulness of the Committee in polishing and/or refining the Generic HACCP Model, any benefits to you personally and/or your company, travel expenses, costs of telephone calls, etc.

Overall, committee members seemed pleased to be involved in the Steering Committee, even though some activities took them longer to achieve than they initially expected. Committee members were happy to be a part of the decisionmaking process.

Steering Committee members said that the time and expense of being a part of the committee was not a burden although two member felt that it could be a hardship for a person coming from a small company.

"I work with USDA and FDA most every day and I was impressed from Day One [with this program]. This was the best run, best managed program. USDA should tip their hats and take a bow. All of the committee members feel this way and so do a lot of the people I spoke with at the Baltimore meeting. We're positively impressed. USDA is doing a great job. If I could suggest one thing to be done differently, it would be to have the materials given out in advance of the workshop so the participants could have come better prepared."

"I feel very good about having been on the Steering Committee and having shared ideas, feelings and a spirit about this activity and about what we accomplished. There is a pride or egotism in having been involved in such an activity from the beginning on the ground floor and in having the ability to influence policy. I was impressed. Everyone stayed on target."

"The negative aspects of being on the Steering Committee were the time spent away from normal work duties and the dollar expenses involved. It would have been difficult for someone from a small company to have been on the Steering Committee because of the commitment of time and money. All of us were from large companies (corporations) except me (the Chairperson) and I'm from an association that represents smaller companies. Therefore, I felt I was the one on the committee who best presented the interests of the small companies. Because I'm Technical Director of Salad Manufacturers, they undewrote fifty percent of my expenses."



Q-8. What are your ideas concerning the usefulness and viability of the function of the Steering Committee?

**"USDA couldn't have done this [develop a HACCP model] without the Steering Committee. If they had done it themselves, they would have polished the model differently. This was the best way to develop an industry model."**

**"The model produced at the workshop was good, but unpolished, and it was appropriate to have a small group (i.e., the Steering Committee) fix it up."**

**Committee members felt strongly that it was important to get good people [to serve on steering committees]. This [Refrigerated Foods] Steering Committee was composed of people who had experience with the actual process. Steering committees should be composed of such people rather than "academics" who have no experience preparing the product at a plant.**

**Several committee members expressed a concern that there was not a USDA representative at the Washington meeting. Although they understood the need to draw up an industry HACCP model, an FSIS person there would have been helpful for answering questions. On the other hand, one member said that it was probably good that FSIS wasn't involved. The Steering Committee Coordinator said it would be best if a HACCP Special Team member could be there, however, current regulations would not allow only one FSIS representative.**

**The Steering Committee was needed to handle issues that were unresolved at the conclusion of the workshop. Committee members were gratified that their handling of Principle #1 was taken seriously and referred on to the NACMCF.**



## **APPENDIX B**

### **COOKED SAUSAGE STEERING COMMITTEE RESPONSES TO QUESTIONNAIRE**

*Policy Analysis Unit  
February 1994*



*Steering Committee Role and Time, Effort, and Costs Expended***Questionnaire I: Steering Committee Meetings during the HACCP Workshop**

This questionnaire focused on the Steering Committee's activities during the HACCP Model Development Workshop at Ft. Worth, TX, on May 21-23, 1991. A Policy Analysis Unit (PAU) Analyst recorded information at the time of the workshop meeting. A PAU Analyst also interviewed the FSIS Steering Committee Coordinator, the Steering Committee Chairperson, and other committee members.

**Q-1. How many times did the Steering Committee meet?**

The Cooked Sausage Steering Committee did not meet separately at the Ft. Worth meeting. Workshop participants wanted everyone, not just committee members, to hear the charge to the committee and the intent of the evaluation questionnaire.

**Q-2. Please estimate the number of hours spent relative to each of these meetings concerning actual time in meetings, as well as any preparation time for the meetings.**

N/A

**Q-3. In general, what was the purpose of each meeting? What topics were covered? What was accomplished in each meeting? If the(se) meetings resulted in any decisions, or written documentation, report(s) or other products, please specify and estimate the number of hours expended in these activities that were not included in the response to Question 2 above.**

On May 23, 1991, at the end of the working group sessions, when the full group reconvened, Special Team members introduced the participants who had been elected to the Steering Committee from each working group.

Dr. Nathaniel Clark, FSIS Steering Committee Coordinator, reiterated the role of the Steering Committee to the workshop participants. He stated a chairperson needed to be elected and asked if there were any volunteers. William Sveum, Oscar Mayer, volunteered and was unanimously accepted by the committee members.

The committee was not charged with any tasks other than "wordsmithing" the model developed at the workshop.

**Q-4. Were there any other Steering Committee activities that occurred during the workshop that haven't been addressed? If yes, please explain.**

After the session was dismissed, a PAU analyst introduced herself to the Steering Committee chairperson and said she or another analyst from PAU would be in touch with him and the other committee members after the generic model was fine-tuned.



## *Steering Committee Role and Time, Effort, and Costs Expended*

### Questionnaire II: Steering Committee Contacts between the Workshop and the On-Site Visit

This questionnaire was designed to collect information on the activities of the Steering Committee for the period of time between the HACCP Workshop and the Pilot Plant On-Site Evaluation. A PAU Analyst administered this questionnaire by telephone to the FSIS Steering Committee Coordinator, the Steering Committee Chairperson, and members of the Steering Committee.

- Q-1.** What activities were undertaken by the Steering Committee during the time period between the Workshop and the On-Site Evaluation (*e.g.*, meetings, phone calls, etc.)? What was the purpose of each activity? What topics were covered and what was accomplished by each activity? How much time was spent in each activity? Was there preparation time involved? If so, how much time?

The committee did not hold a meeting. It accomplished its task via four conference calls (7/3, 7/19, 7/24, and 8/23) each approximately two hours in length at which time members went over the model developed at the workshop step by step, "wordsmithing" it for consistency with itself and with the Refrigerated Foods HACCP model. The chairperson coordinated the conference calls, faxed updated drafts to members, and acted as facilitator. In addition, individual phone calls were made between members.

Originally, the committee wanted to be able to revise the generic model developed at the workshop. Members felt there were too many CCPs in the generic model and that a couple of issues regarding sanitation had been left hanging. The Special Team Leader told committee members they could only polish the workshop model but they could develop and submit an alternative HACCP model to FSIS. The chairperson suggested to the committee that each member write an alternative generic model. An alternative model, developed from committee suggestions, was discussed and polished by committee members during their conference calls.

The committee submitted the polished workshop model to the HACCP Special Team on September 5, 1991. In addition, it presented the alternative model which it had developed. The committee would like to see the alternative model presented to the industry. To date no action has been taken on this request.

- Q-2.** Was the entire Steering Committee involved in these activities (meetings, telephone calls, report writing, etc.)? Please elaborate. Yes   X   No

Steering Committee members worked together and came to decisions by consensus during the conference calls.

- Q-3.** Was anyone other than Steering Committee members involved in these activities? Yes   X   No        (Continue with Q-4)  
If yes, please elaborate.

The chairperson's secretary would retype the drafts and fax them to committee members. Committee members used colleagues in their organizations for specific information about various processes.

- Q-4.** Were there any other Steering Committee activities that occurred during this time period that we haven't discussed? Yes        No   X

If yes, please explain.

There were no other activities during this period.



*Steering Committee Role and Time, Effort, and Costs Expended***Questionnaire III: Steering Committee Contacts during and after the On-Site Visit**

This questionnaire requested information on the Steering Committee's activities during and after the pilot plant On-Site Evaluation. It also addressed the role of the Steering Committee in general. This instrument was administered by the Policy Analysis Unit by telephone to the FSIS Steering Committee Coordinator and to all Steering Committee members upon completion of the On-Site Evaluation or after all (if any) refinements/changes to the Generic HACCP Model had been incorporated.

**Steering Committee Activities**

- Q-1.** What activities were undertaken by the Steering Committee during and after the On-Site Evaluation (e.g., meetings, phone calls, etc.)? What was the purpose of each activity? What topics were covered and what was accomplished by each activity? How much time was spent in each activity? Was there preparation time involved? If so, how much time? [N.B.: If no activities occurred, skip to Q-4.]

The committee had no activities during the On-Site Evaluation period.

- Q-2.** Was the entire Steering Committee involved in these activities (meetings, telephone calls, report writing, etc.)? Please elaborate. Yes \_\_\_\_\_ No \_\_\_\_\_

N/A

- Q-3.** Was anyone other than Steering Committee members involved in these activities? Yes \_\_\_\_\_ No \_\_\_\_\_ (Continue with Q-4)  
If yes, please elaborate.

N/A

- Q-4.** Were there any other Steering Committee activities that occurred during this time period that we haven't discussed? Yes \_\_\_\_\_ No \_\_\_\_\_

If yes, please explain.

N/A

**Steering Committee Role**

- Q-5.** Now that you have served as a member of the Steering Committee, what do you think is the role of the Steering Committee?

According to committee members, the role of the Steering Committee was to polish the generic model. However, they felt this role was limiting. "All it [the committee] can do is wordsmith, it can't really clean up the model." "It was disheartening that we could not make changes. The Steering Committee should be permitted to change CCPs. It has no clout at all." They had felt that as a steering committee



elected by members of the workshop, they could represent workshop participants and make changes in the model.

They felt their role should be expanded to handle unresolved issues. "In the workshop certain issues were not aired because of the presence of the press. In a small group like the Steering Committee, issues could be discussed more confidentially."

"Because we were a small group and were all technical and quality control people who understood the process, we could do a better job of determining a HACCP plan." "Some people [at the workshop] were interested only in production."

**Q-6. In brief, what did you do to perform your role?**

The chairperson coordinated the conference calls, took notes, wrote down ideas, and drew up drafts which he faxed to members.

Committee members wrote alternative HACCP plans and participated in conference calls. One put the drafts on his portable computer so that he could keep up-to-date with changes to the model.

**Q-7. Please note any other comments you would like to offer concerning the role, time and effort of the Steering Committee. Consider usefulness of the Committee in polishing and/or refining the Generic HACCP Model, any benefits to you personally and/or your company, travel expenses, costs of telephone calls, etc.**

The chairperson said he had spent 40 hours on activities for the Steering Committee. Other members estimated they had spent 8 hours in addition to the conference calls for a total of approximately 16 hours. None felt their participation had entailed much cost to their companies particularly since the group did not meet and therefore had incurred no travel expenses. Members had either volunteered to be on the Steering Committee or did not turn down the nomination because they felt it was a plus for them and their companies. Their companies were glad to be involved in developing what they considered an important document.

One member who was QC director at his plant planned to take advantage of his involvement in HACCP and start a program at his plant. Another who worked for a lab hoped that some day his participation would benefit his company. "As a result of their involvement, they [his company] would be able to help others with HACCP plans and would understand where USDA and industry are coming from."

**Q-8. What are your ideas concerning the usefulness and viability of the function of the Steering Committee?**

"It [the Steering Committee] is most useful to industry in making the wording [of a HACCP generic plan] uniform so that there are no mixed interpretations of what it means."

"The Steering Committee is absolutely essential to make the generic plan more understandable to industry and the wording consistent. It is necessary to look at what was done by previous steering committees so the models read the same. Committees need to contact chairpersons of the other steering committees. The plan should be totally understandable so industry can pick up plans and write their own specific plans from the model."

"Given its limitations, it was useful in providing an alternative model."

"I'm in favor of steering committees. It [the Cooked Sausage Steering Committee] worked effectively without meeting because most members were QC people and technical people."

"The key was to do it as a group, not divide areas; to come to consensus and work from that point on. It was frustrating not to be able to change the model."



## COOKED SAUSAGE

One member felt it would have been helpful to hold at least one meeting of the committee. "There was often a person missing from the conference call, or they had to get off the line after only a few minutes to take care of other business."

Another said "One area not as well done was communication within the committee. I have not seen the final copy [of the generic model], but only a fax."



## **APPENDIX C**

### **POULTRY SLAUGHTER STEERING COMMITTEE RESPONSES TO QUESTIONNAIRE**

*Policy Analysis Unit  
February 1994*





*Steering Committee Role and Time, Effort, and Costs Expended***Questionnaire I: Steering Committee Meetings during the HACCP Workshop**

This questionnaire focused on the Steering Committee's activities during the HACCP Model Development Workshop in Atlanta, GA, on August 27-29, 1991. A Policy Analysis Unit (PAU) Analyst recorded information at the time of the workshop meeting. A PAU Analyst also interviewed the FSIS Steering Committee Coordinator, the Steering Committee Chairperson, and other committee members.

**Q-1. How many times did the Steering Committee meet?**

**The Poultry Slaughter Steering Committee met briefly once at the end of the Atlanta workshop.**

**Q-2. Please estimate the number of hours spent relative to each of these meetings concerning actual time in meetings, as well as any preparation time for the meetings.**

	<u>Time in Meeting</u>	<u>Preparation Time</u>
Meeting 8/29/91	5-10 minutes	none

**Q-3. In general, what was the purpose of each meeting? What topics were covered,? What was accomplished in each meeting? If the(se) meetings resulted in any decisions, or written documentation, report(s) or other products, please specify and estimate the number of hours expended in these activities that were not included in the response to Question 2 above.**

**Dr. Nathaniel Clark, FSIS Steering Committee Coordinator, met with Steering Committee members for about 5-10 minutes at the conclusion of the workshop. He explained the role of the Steering Committee, addressed any items they didn't understand and oversaw the selection of the chairperson. Mike Gregory, Hudson Foods, Inc. volunteered to be chairperson.**

**In addition to "wordsmithing" the model, the committee was asked to address the "notes to industry" on chemical residues and chlorination which were left unresolved at the workshop.**

**Q-4. Were there any other Steering Committee activities that occurred during the workshop that haven't been addressed? If yes, please explain.**

**There were no other activities during the workshop.**



*Steering Committee Role and Time, Effort, and Costs Expended***Questionnaire II: Steering Committee Contacts between the Workshop and the On-Site Visit**

This questionnaire was designed to collect information on the activities of the Steering Committee for the period of time between the HACCP Workshop and the Pilot Plant On-Site Evaluation. A PAU Analyst administered this questionnaire by telephone to the FSIS Steering Committee Coordinator, the Steering Committee Chairperson, members of the Steering Committee.

- Q-1.** What activities were undertaken by the Steering Committee during the time period between the Workshop and the On-Site Evaluation (e.g., meetings, phone calls, etc.)? What was the purpose of each activity? What topics were covered and what was accomplished by each activity? How much time was spent in each activity? Was there preparation time involved? If so, how much time?

The chairperson talked to committee members individually about how to accomplish their task. One suggested that each committee member be responsible for "wordsmithing" a column in the generic plan such as "Critical Limits" or "HACCP System Verification." The chairperson polled committee members about this method and they agreed to use it. He then assigned each member columns from the generic plan. Committee members "wordsmithed" their assignments and mailed or faxed the drafts to him. The chairperson sent them a final draft of the entire plan for their review prior to submitting it to the Steering Committee Coordinator.

As his assignment, the chairperson addressed the "notes from industry." According to him workshop participants had argued for three days about "chemical residue" and "chlorination" issues and finally assigned the Steering Committee the task of deciding what to do about these items. The chairperson felt that since the workshop participants as a whole had added these two concerns as notes to the generic plan, it was not appropriate for the Steering Committee to add them to the model. In his submittal letter, the committee acknowledged the "notes from industry" and endorsed them as recommendations to USDA.

The chemical residue note is an acknowledgment that the poultry industry already has in place effective preventative and monitoring programs in the live production area. The inclusion of chemical residue as a CCP at slaughter would be a duplication of effort and less effective.

The chlorination note is a series of recommended check points to be considered as the CCP's regarding chlorination of the chillers are implemented during the pilot plant studies.

The committee submitted the polished model to the FSIS Steering Committee Coordinator on November 15, 1991.

- Q-2.** Was the entire Steering Committee involved in these activities (meetings, telephone calls, report writing, etc.)? Please elaborate. Yes ☒ No ☐

All committee members performed their assignments.

- Q-3.** Was anyone other than Steering Committee members involved in these activities? Yes ☒ No ☐ (Continue with Q-4)

If yes, please elaborate.

The chairperson and one other member talked to the chairperson of the Cooked Sausage Steering Committee. Stacey Edelbach, Training Staff, typed the polished model for the committee prior to submission to the Steering Committee Coordinator.

- Q-4.** Were there any other Steering Committee activities that occurred during this time period that we haven't discussed? Yes ☐ No ☒

If yes, please explain.



*Steering Committee Role and Time, Effort, and Costs Expended***Questionnaire III: Steering Committee Contacts during and after the On-Site Visit**

This questionnaire requested information on the Steering Committee's activities during and after the pilot plant On-Site Evaluation. It also addressed the role of the Steering Committee in general. This instrument was administered by the Policy Analysis Unit by telephone to the FSIS Steering Committee Coordinator and to all Steering Committee members upon completion of the On-Site Evaluation or after all (if any) refinements/changes to the Generic HACCP Model have been incorporated.

**Steering Committee Activities**

- Q-1.** What activities were undertaken by the Steering Committee during and after the On-Site Evaluation (e.g., meetings, phone calls, etc.)? What was the purpose of each activity? What topics were covered and what was accomplished by each activity? How much time was spent in each activity? Was there preparation time involved? If so, how much time? [N.B.: If no activities occurred, skip to Q-4.]

The committee had no activities during the On-Site Evaluation period.

- Q-2.** Was the entire Steering Committee involved in these activities (meetings, telephone calls, report writing, etc.)? Please elaborate. Yes \_\_\_\_\_ No \_\_\_\_\_

N/A

- Q-3.** Was anyone other than Steering Committee members involved in these activities? Yes \_\_\_\_\_ No \_\_\_\_\_ (Continue with Q-4)  
If yes, please elaborate.

N/A

- Q-4.** Were there any other Steering Committee activities that occurred during this time period that we haven't discussed? Yes \_\_\_\_\_ No \_\_\_\_\_

If yes, please explain.

N/A

**Steering Committee Role**

- Q-5.** Now that you have served as a member of the Steering Committee, what do you think is the role of the Steering Committee?

Committee members felt the role of the committee was to "wordsmith" the generic model. The chairperson said some steering committees tried to come up with separate models. He said "as representatives of the workshop participants, we [the Poultry Slaughter Steering Committee] should respect the actions of the workshop participants and not recommend changes."



One complained that basically the committee was doing secretarial work. He felt that if the committee was elected by the workshop participants, then the members should be able to make changes in the model.

**Q-6. In brief, what did you do to perform your role?**

The chairperson talked one-on-one with committee members and assigned columns to "wordsmith." Assignments were given based on areas that members had specialized in at the workshop.

Committee members "wordsmithed" their columns and faxed them to the chairperson. One member said he used reference information for his work on "Verification" and had read the other HACCP generic models.

**Q-7. Please note any other comments you would like to offer concerning the role, time and effort of the Steering Committee. Consider usefulness of the Committee in polishing and/or refining the Generic HACCP Model, any benefits to you personally and/or your company, travel expenses, costs of telephone calls, etc.**

The chairperson estimated that he had spent approximately 16 hours on Steering Committee business. His company was supportive of his work with HACCP. He said his biggest problem was contacting committee members. In hindsight, he felt he probably should have set a date for a conference call or meeting to hammer it out ["wordsmithing the generic model"]. It might have been done more efficiently that way rather than his trying to catch up with people by phone. He said his team were all so busy traveling that he had a hard time keeping up with them.

He felt more direction could have been given about how the committee should function. "It would be helpful to have some tips to find the best way." He would like to be given ideas about how the group should function if he should have to reconvene his team after the on-site visits.

Committee members spent from 4 to 12 hours on their assignments. Their companies were supportive of their involvement. One said his company was pushing for it [HACCP] and had done a lot of work and training in this area. None felt their involvement was a burden on their company but was rather a plus to the company.

One member had been on the National Broiler Council Subcommittee on HACCP so he was interested in going to the workshop. "I am a strong supporter of the program. It's the first time I'd been on a committee. It was easier that trying to persuade one of our plants to be a pilot project."

One member said he thought the generic plan was very workable. He said his company has installed the generic model in their plants.

**Q-8. What are your ideas concerning the usefulness and viability of the function of the Steering Committee?**

One committee member said it was important for industry to participate. "They [industry members] know what will work in a plant. They [industry members] can do a better selling job on HACCP."

One was disturbed by the fact that FSIS representatives voted at the HACCP workshop. He suggested that an alternative way of developing a HACCP model would be for an advisory panel to put one together. He felt the workshop was biased by interest groups like the Turkey Council, The National Broiler Council, and USDA.

Although his company is strongly in favor of HACCP, this same member didn't think HACCP would be used by the industry without USDA pushing for it.

**APPENDIX D**

**GROUND BEEF STEERING COMMITTEE  
RESPONSES TO QUESTIONNAIRE**

*Policy Analysis Unit  
February 1994*





*Steering Committee Role and Time, Effort, and Costs Expended***Questionnaire I: Steering Committee Meetings during the HACCP Workshop**

This questionnaire focussed on the Steering Committee's activities during the HACCP Model Development Workshop at Phoenix, AZ, on December 3-5, 1991. A PAU Analyst interviewed by telephone the FSIS Steering Committee Coordinator, the Steering Committee Chairperson, and other committee members.

Q-1. How many times did the Steering Committee meet?

**The Ground Beef Steering Committee met briefly at the Phoenix workshop before the final lunch.**

Q-2. Please estimate the number of hours spent relative to each of these meetings concerning actual time in meetings, as well as any preparation time for the meetings.

	<u>Time in Meeting</u>	<u>Preparation Time</u>
Meeting 12/5/91	5-10 minutes	none

Q-3. In general, what was the purpose of each meeting? What topics were covered,? What was accomplished in each meeting? If the(se) meetings resulted in any decisions, or written documentation, report(s) or other products, please specify and estimate the number of hours expended in these activities that were not included in the response to Question 2 above.

**Dr. Nathaniel Clark, FSIS Steering Committee Coordinator, met with the committee. He explained the role of the Steering Committee, answered their questions, and oversaw the selection of chairperson, Ryan Englund, Jac Pac Foods, and co-chairperson, William Lloyd, Monfort, Inc. The chairperson assigned duties to the committee and a date was set for a conference call.**

**The committee was not charged with any tasks other than "wordsmithing" the model developed at the workshop.**

Q-4. Were there any other Steering Committee activities that occurred during the workshop that haven't been addressed? If yes, please explain.

**There were no other activities during the workshop.**



*Steering Committee Role and Time, Effort, and Costs Expended***Questionnaire II: Steering Committee Contacts between the Workshop and the On-Site Visit**

This questionnaire was designed to collect information on the activities of the Steering Committee for the period of time between the HACCP Workshop and the Pilot Plant On-Site Evaluation. A PAU Analyst administered this questionnaire by telephone to the FSIS Steering Committee Coordinator, the Steering Committee Chairperson, and other members of the Steering Committee.

- Q-1.** What activities were undertaken by the Steering Committee during the time period between the Workshop and the On-Site Evaluation (e.g., meetings, phone calls, etc.)? What was the purpose of each activity? What topics were covered and what was accomplished by each activity? How much time was spent in each activity? Was there preparation time involved? If so, how much time?

Each member of the committee had been asked to make notations and changes to the generic model and send them to the chairperson by the Tuesday, December 10, 1991, following the workshop. He combined their suggestions into a rough draft and sent it out to the committee members. At a teleconference on December 19, 1991 (of about one-half hour), members went through the model word-by-word and made further changes. The chairperson typed in their changes and sent committee members the final draft for review. He submitted the final version, dated December 19, 1991, to the FSIS Steering Committee Coordinator.

The committee felt under pressure as they had been urged by the FSIS Steering Committee Coordinator to complete their "wordsmithing" as quickly as possible.

- Q-2.** Was the entire Steering Committee involved in these activities (meetings, telephone calls, report writing, etc.)? Please elaborate. Yes ☒ No ☐

All committee members made changes or notes on the draft models they sent to the chairperson. The members tried as much as possible to reflect the desires of the workshop participants. They wanted to produce consistency, clarity, and brevity.

- Q-3.** Was anyone other than Steering Committee members involved in these activities? Yes ☒ No ☐ (Continue with Q-4)  
If yes, please elaborate.

One member shared the generic plan with the Quality Control staff at his plant as they are working on their own HACCP plan.

- Q-4.** Were there any other Steering Committee activities that occurred during this time period that we haven't discussed? Yes ☒ No ☐

If yes, please explain.

The chairperson said he had gotten a diskette with a copy of the model on it which made the task of updating the drafts go relatively smoothly. He also said he had shared the model with people in his plant but had not asked them for help with the "wordsmithing."



*Steering Committee Role and Time, Effort, and Costs Expended***Questionnaire III: Steering Committee Contacts during and after the On-Site Visit**

This questionnaire requested information on the Steering Committee's activities during and after the pilot plant On-Site Evaluation. It also addressed the role of the Steering Committee in general. This instrument was administered by the Policy Analysis Unit by telephone to the FSIS Steering Committee Coordinator and to all Steering Committee members upon completion of the On-Site Evaluation or after all (if any) refinements/changes to the Generic HACCP Model have been incorporated.

**Steering Committee Activities**

- Q-1.** What activities were undertaken by the Steering Committee during and after the On-Site Evaluation (e.g., meetings, phone calls, etc.)? What was the purpose of each activity? What topics were covered and what was accomplished by each activity? How much time was spent in each activity? Was there preparation time involved? If so, how much time? [N.B.: If no activities occurred, skip to Q-4.]

There were no peer reviewed pilot tests of the Ground Beef generic model.

- Q-2.** Was the entire Steering Committee involved in these activities (meetings, telephone calls, report writing, etc.)? Please elaborate. Yes \_\_\_\_\_ No \_\_\_\_\_

N/A

- Q-3.** Was anyone other than Steering Committee members involved in these activities? Yes \_\_\_\_\_ No \_\_\_\_\_ (Continue with Q-4)

N/A

- Q-4.** Were there any other Steering Committee activities that occurred during this time period that we haven't discussed? Yes \_\_\_\_\_ No \_\_\_\_\_

N/A

**Steering Committee Role**

- Q-5.** Now that you have served as a member of the Steering Committee, what do you think is the role of the Steering Committee?

Committee members thought the role of the steering committee was to refine the model for consistency.

The chairperson thought the group should meet after the one-site evaluation period to deal with portion control for steaks.



"We worked easily compared to some groups. One reason may have been because of the type of product. Ground beef doesn't have too many steps compared to some other processes."

"It's [the Steering Committee] very important. Industry should regulate itself."

Q-6. In brief, what did you do to perform your role?

"I made comments on the draft model and faxed them to the chairperson and participated in the conference call."

"As chairperson, I edited together all the committee's comments and sent out for review the final draft before submitting it to the Steering Committee Coordinator. I organized the conference call."

Q-7. Please note any other comments you would like to offer concerning the role, time and effort of the Steering Committee. Consider usefulness of the Committee in polishing and/or refining the Generic HACCP Model, any benefits to you personally and/or your company, travel expenses, costs of telephone calls, etc.

Committee members estimated that they had spent from 2-8 hours doing work for the Steering Committee. The cost was minimal to their companies. Their companies were enthusiastic about their participation. One member mentioned that his company was thrilled because they wanted to be a pilot plant.

The chairperson said he had spent about three days total on Steering Committee business. If he had had to attend a meeting, his participation on the committee would have been a burden to his company. He was absolutely sold on the program as his company is doing it anyway.

He said the Ground Beef Steering Committee had an advantage over the other groups. They were able to follow the standards set by earlier groups so it ["wordsmithing" the model] went very smoothly.

The chairperson's company is very involved in quality. Ten percent of bonuses are based on quality. They must make their product right the first time or costs become a problem. They are moving into HACCP and would like to be a pilot plant.

"It didn't matter for the working of the committee what size firm members came from. It may be more difficult for smaller firms to implement HACCP, however."

Q-8. What are your ideas concerning the usefulness and viability of the function of the Steering Committee?

"The Steering Committee is necessary. It would not work to have a USDA group do it [refine the generic model]. If industry does it [refine the model], it gives them more ownership of the model."

One member would like to see the Steering Committee visit a pilot plant to see how the model was working although he recognised the impossibility of doing so since each plant would want to protect its proprietary information.

The chairperson wished more people from industry had attended the workshop. He said the approach was good. It would be hard for industry to do it [develop a generic model] by itself. Most industry representatives don't have the scientific background. It was a cooperative effort which will be beneficial for the future.

One member's company had considered being a pilot plant but was leery about volunteering because the company is participating in an organic acid wash pilot which is now in its 8th year of operation.

One suggested several options other than the workshop to develop HACCP plans. "One method would be for FSIS to put HACCP models for comment in the Federal Register. At the workshops, FSIS already knew what it wanted." Another idea he had was to take a process that many PQC programs have been written for and write a HACCP model based on them. He also suggested setting up a steering committee for each product.

## **APPENDIX E**

### **SWINE SLAUGHTER STEERING COMMITTEE RESPONSES TO QUESTIONNAIRE**

*Policy Analysis Unit  
February 1994*





*Steering Committee Roles, and Time, Effort, and Costs Expended*

**Questionnaire I: Steering Committee Meetings during the HACCP Workshop**

This questionnaire focuses on the Steering Committee's activities during the HACCP Model Development Workshop at Minneapolis, MN on March 31 - April 2, 1992. A Policy Analysis Unit (PAU) analyst recorded information at the time of the workshop meeting. A PAU analyst also interviewed the FSIS Steering Committee Coordinator, Steering Committee Chairperson, and other committee members.

Q-1. How many times did the Steering Committee meet?

The Swine Slaughter Steering Committee met once briefly at the end of the Minneapolis workshop.

Q-2. Please estimate the number of hours spent relative to each of these meetings concerning actual time in meetings, as well as any preparation time for the meetings.

	<u>Time in Meetings</u>	<u>Preparation Time</u>
Meeting 4/2/92	15-20 minutes	none

Q-3. In general, what was the purpose of each meeting? What topics were covered? What was accomplished in each meeting? If the(se) meetings resulted in any decisions, or written documentation, report(s) or other products, please specify and estimate the number of hours expended in these activities that were not included in the response to Question 2 above.

Steering committee members introduced themselves. Dr. Nathaniel Clark, FSIS Steering Committee Coordinator, explained the duties of the committee including what could and could not be changed in the model. A chairperson and co-chairperson were named. The committee asked Katie Hanigen, Farmland Foods, to be chairperson. Ellen Graber, Thorn Apple Valley, was named co-chairperson. The chairperson told the others she would be in contact with them to set up a conference call. In the meantime, committee members were to study their hard copies of the model and make any changes in preparation for the call. The members were "scrambling to catch airplanes" so the meeting was short.

The workshop participants wanted the Steering Committee to address two issues relative to food safety as addenda to the generic plan:

pesticides and antibiotic residues and  
organic acid sanitizing systems for microbial reduction.

Q-4. Were there any other Steering Committee activities that occurred during the workshop that haven't been addressed? If yes, please explain.

There were no other activities during the workshop.



*Steering Committee Roles, and Time, Effort, and Costs Expended*

**Questionnaire II: Steering Committee Contacts between the Workshop and the On-Site Visit**

This questionnaire was designed to collect information on the activities of the Steering Committee for the period of time between the HACCP Workshop and the Pilot Plant On-Site Visit. A PAU Analyst administered this questionnaire by telephone to the FSIS Steering Committee Coordinator, the Steering Committee Chairperson, and members of the Steering Committee.

- Q-1. What activities were undertaken by the Steering Committee during the time period between the Workshop and the On-Site Visit (e.g., meetings, phone calls, etc.)? What topics were covered and what was accomplished by each activity? How much time was spent in each activity? Was there preparation time involved? If so, how much time? Overall, how significant was each issue that was addressed.

The chairperson contacted Dr. Clark to verify the charge to the committee. She then set up a conference call which was held April 22, 1992, for two hrs. and 15 min. At the conference call, the committee went through each step of the model and discussed each point and committee members agreed, disagreed, made suggestions, and then voted. After this conference call, the chairperson sent out a draft revision and the committee held another conference call on May 6, 1992, for 15 minutes to go over the revised document. In addition, other phone calls were made between members. Only a few minor changes were made after the May 6 conference call.

The chairperson then sent the final version to Dr. Clark on May 7, 1992, which included the addendum written by Kirk Jones, one of the committee members. The addendum on pesticides and antibiotic residues suggested that cooperation among regulatory agencies, swine producers, and packers is necessary to reduce the chemical residue hazard. It listed present and future preventative methods which could be taken. The addendum on organic acid sanitizing systems agreed that acid sprays are not a substitute for Good Manufacturing Practices, but would be useful as a means of intervention and prevention of bacterial growth during and after the slaughter process. It then listed points in favor of using organic acid sprays.

Dr. Clark sent a letter to the committee acknowledging receipt of the polished model and thanking the committee for its efforts.

- Q-2. Was the entire Steering Committee involved in these activities (meetings, telephone calls, report writing, etc.)? Please elaborate. Yes X No

All members participated in both conference calls.

- Q-3. Was anyone other than Steering Committee members involved in these activities? Yes X No        (Continue with Q-4)  
If yes, please elaborate.

Some members talked about the model with other employees at their plants. The chairperson's secretary typed drafts of the model.

- Q-4. Were there any other Steering Committee activities that occurred during this time period that we haven't discussed? Yes X No

If yes, please explain.

On June 12, 1992, the chair received a call from Dr. Clark. Training staff at Texas A&M had contacted him asking that footnotes be added to the generic model. Operational Sanitation was described as CC 9B near the end of the model, but was used on earlier pages of the model. The requested footnote "Covered on pg. 11 under 9B" was to be added wherever Operational Sanitation was mentioned under Preventative Measures. The chairperson made the appropriate changes, returned a copy to Dr. Clark, and contacted her committee about the changes, ready to initiate another conference call if the committee felt it was necessary.



*Steering Committee Roles, and Time, Effort, and Costs Expended*

**Questionnaire III: Steering Committee Contacts during and after the On-Site Visit**

This questionnaire requested information on the Steering Committee's activities during and after the pilot plant On-Site Visit. It also addressed the role of the Steering Committee in general. This instrument was administered by the Policy Analysis Unit by telephone to the FSIS Steering Committee Coordinator, Assistant Coordinator, and all Steering Committee members upon completion of the On-Site Evaluation or after all (if any) refinements/changes to the Generic HACCP Model have been incorporated.

**Steering Committee Activities**

Q-1. What activities were undertaken by the Steering Committee during and after the On-Site Visit (e.g., meetings, phone calls, etc.)? What was the purpose of each activity? What topics were covered and what was accomplished by each activity? How much time was spent in each activity? Was there preparation time involved? If so, how much time? [N.B.: If no activities occurred, skip to Q-4.]

There were no peer reviewed pilot tests of the Swine Slaughter generic model.

Q-2. Was the entire Steering Committee involved in these activities (meetings, telephone calls, report writing, etc.)? Please elaborate. Yes \_\_\_\_\_ No \_\_\_\_\_

N/A

Q-3. Was anyone other than Steering Committee members involved in these activities? Yes \_\_\_\_\_ No \_\_\_\_\_ (Continue with Q-4)  
If yes, please elaborate.

N/A

Q-4. Were there any other Steering Committee activities that occurred during this time period that we haven't discussed? Yes \_\_\_\_\_ No \_\_\_\_\_

If yes, please explain.

The chair had served on the HACCP Cooked Sausage Steering Committee also.

**Steering Committee Role**

Q-5. Now that you have served as a member of the Steering Committee, what do you think is the role of the Steering Committee?

"The role of the Steering Committee is to put consistent wording throughout the model and eliminate anything that would tie a company down to using a specific method to control at a CCP."

"Someone had to "wordsmith" the model and make the wording more uniform. People at the workshop who had been at other workshops referred to the other models for wording, but this Steering Committee did not refer to other models during our discussions."



"The role of the Steering Committee was very important. It would be difficult to get a large group like the entire workshop to agree. A small group could get changes in wording done quicker and easier."

"It was easier for me to work with a group than perhaps others on the committee as my company works in teams all the time."

Q-6. In brief, what did you do to perform your role?

"I set up conference calls, faxed information about the calls and generic model to committee members, and contacted Dr. Clark with questions. I tried to avoid having a meeting as the members are busy people."

Some additional faxes were sent between committee members with information about the model. Stacey Edelbach at Texas A&M sent a disk with the model on it so the chairperson's secretary could make the modifications to it.

Committee members prepared ahead for conference calls, participated in the conference calls, and made modifications to the model.

"I prepared the addenda on chemical residues from pesticides and antibiotics and on organic acid sanitizing systems."

Q-7. Please note any other comments you would like to offer concerning the role, time and effort of the Steering Committee. Consider usefulness of the Committee in polishing and/or refining the Generic HACCP Model, any benefits to you personally and/or your company, travel expenses, costs of telephone calls, etc.

"I spent 2 or 3 days on Steering Committee business. My secretary spent about 8 hours faxing memos to committee members and typing the changes to the model that Stacey had sent up on disk. Cost of the two conference calls was \$275. My company has been supportive and is really behind my participation in HACCP."

Committee members estimated they had spent between 3 and 20 hours on Steering Committee business. None felt their participation on the Steering Committee was a burden to their companies. Rather, their companies were supportive of their participation.

Q-8. What are your ideas concerning the usefulness and viability of the function of the Steering Committee?

"It is important to have a steering committee of industry members. If the government did the "wordsmithing", some people would complain. Workshop participants have a more comfortable feeling leaving the meeting knowing that IBP, Montfort, Farmland, Thorn Apple Valley, and Johnsonville Foods would be doing the "worksmithing"."

Representatives of both large and small companies attended the workshop so the interests of the smaller packers were taken into account. There was a good variety of experiences on the Steering Committee. Some were nitty, gritty operations types at the plant manager, supervisor level who were knowledgeable and could provide a reality check on the steps in the model.

"Our company will begin implementing our own HACCP program on the kill floor. We will try it for 12-16 weeks to see if it makes a difference. I asked my company to try HACCP as there are not going to be any pilot plants. Our plant will have some valuable data to use for making comments if regulations come out on HACCP. I talked to Dr. Clark about it. He said we should use all the generic CCPs and any others which apply directly to our plant."

"I think that HACCP applies better and is more effective on a processed product like cooked sausage than on the kill floor."

## SWINE SLAUGHTER

"The Steering Committee worked well together. There was a good cross section of the pork business: 2 large, 2 mid-size and one small company were represented. We developed good relationships among committee members. I'm relatively new in the industry so it helped to get to know and work on a common interest with others in the industry."

"It was important to develop a generic model which provides some consistency for the industry. Since representatives of industry had a hand in developing it, it is apt to be more palatable to industry. Getting consensus is very important. The workshop process worked well."

"I would like to see the Steering Committee become a standing committee. It could be a forum for dealing with industry-wide issues which may arise in the slaughter of market hogs such as branding of carcasses and neck wounds."

"Our company has HACCP plans in effect already so we had a jump on the others as far as understanding and implementing HACCP."

"I was initially hesitant about attending the workshop. However, it worked well and was a great forum."





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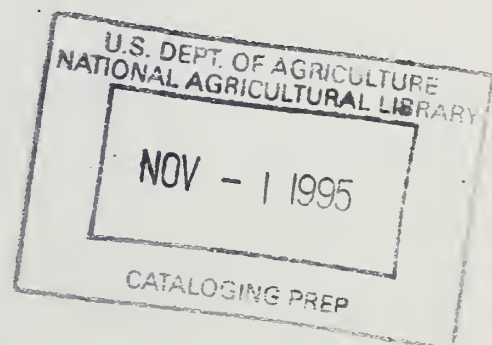
Policy Evaluation  
and Planning  
Staff

HACCP-10

April 1994

# HACCP Workshops Report

## Overview of Plant Adaption Activities



Vol. IV





In January 1990, the Food Safety and Inspection Service (FSIS) of the U.S. Department of Agriculture initiated efforts to determine how to implement the Hazard Analysis and Critical Control Point (HACCP) system in regulated meat and poultry plants. HACCP is a process control system that identifies "critical" points in the food production process that should be controlled to prevent food safety hazards (i.e., microbiological, chemical, and physical hazards) from occurring.

Agency activities included consultations and public hearings to explain HACCP and the Agency's efforts, workshops to develop model HACCP plans, in-plant testing to trial the specific plant HACCP plans at nine volunteer plants, and an assessment of the overall experience of the Agency.

A series of reports will be written on the various phases and activities undertaken by the Agency and participants during the study. This is one of the reports. For further information concerning FSIS HACCP activities contact:

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# **HACCP WORKSHOPS REPORT**

## **Overview of *PLANT ADAPTION ACTIVITIES***

*Vol. IV*

*United States Department of Agriculture*  
Food Safety and Inspection Service  
Policy Analysis Unit  
Washington, D.C. 20250  
February 1994





## SUMMARY

In January 1990, the Food Safety and Inspection Service (FSIS), USDA, began a study to determine the process for HACCP\* implementation into meat and poultry inspection operations. Five workshops were held to develop generic HACCP plans for Refrigerated Foods, Cooked Sausage, Poultry Slaughter, Ground Beef, and Swine Slaughter. Following the Refrigerated Foods, Cooked Sausage, and Poultry Slaughter workshops, the generic models developed at these workshops were tested at three volunteer plants for each product/process. An on-site visit was conducted by two members of the HACCP Special Team at each pilot plant to help plant management develop a plant-specific HACCP plan.

As originally designed, a volunteer plant's plant-specific plan was to be compared with the workshop-developed generic model during an on-site visit at the pilot plant by the HACCP Special Team. However, this process evolved into a lengthier procedure as it became obvious that plants were not prepared to share a plant-specific plan at the initial on-site meeting. Instead, an on-site orientation at the plant led by Special Team members initiated the process of developing an acceptable plant-specific HACCP plan. After the orientation session, baseline data could be collected at the plant while plant management completed the HACCP plan over a period of three or more months.

The generic plans developed at the workshops were found to be applicable to the plants. The Special Team requested only one change to a generic plan based on plant-specific plans in the pilot plants. All the Refrigerated Foods plant-specific plans contained a critical control point (CCP) for "receiving" which was not included in the generic plan for Refrigerated Foods. The Special Team requested the Refrigerated Foods Workshop Steering Committee act to include a CCP for "receiving" in the generic model.

HACCP Special Team members spent a minimum of five days at each plant for the on-site orientation and later visits to help plant personnel develop their plant-specific plan. In addition, they spent four days on preparation time and travel to and from the plants. Further time was spent talking to plant personnel on the telephone about the plan.

The plant quality control manager and staff were usually responsible for preparing the HACCP plant-specific plan. Other plant management were involved in its preparation at some plants. In addition to the time spent with the HACCP Special Team, plants spent two to twenty-four person-days developing their plan and familiarizing plant employees with HACCP.

Plants whose personnel were familiar with HACCP were able to develop a plant-specific plan more quickly. Those to whom the process was unfamiliar would need an increased amount of information and training to develop a plan on their own.

\* Hazard Analysis Critical Control Points (HACCP) is a process control system that identifies "critical" points in the food production process that should be controlled to prevent food safety hazards from occurring.



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# I. INTRODUCTION

## Purpose

To describe the activities undertaken by the HACCP\* Special Team and pilot plant personnel during on-site visits to the plants and during the development of a plant-specific plan using the generic plan developed at the HACCP workshop as a model.

## Background

In January 1990, the Food Safety and Inspection Service (FSIS) began a study to determine the process for Hazard Analysis Critical Control Points (HACCP) implementation in meat and poultry inspection operations. As part of the study, five workshops were held with industry to develop model HACCP plans for specific products and processes. Those chosen included Refrigerated Foods, Cooked Sausage, Poultry Slaughter, Ground Beef, and Swine Slaughter.

Following the Refrigerated Foods, Cooked Sausage, and Poultry Slaughter workshops, the generic HACCP models developed at these workshops were piloted in three volunteer plants for each product/process. An on-site visit at each of the pilot facilities was conducted by two members of the HACCP Special Team assigned to that plant. This visit began the process of matching a plant-specific HACCP plan to the generic HACCP model developed at the workshop. The two-member team, using a "model checklist" developed by FSIS to ensure that all HACCP principles would be met, continued to work with the plant until the plant-specific plan was complete.

## Methodology

The Policy Analysis Unit (PAU), FSIS, as part of the HACCP study, examined on-site visits to pilot plants and the development of plant-specific plans from generic models developed at the workshops. PAU developed a series of questionnaires to assess the time and effort the HACCP Special Team and pilot plant management spent developing plant-specific plans. A PAU analyst administered the questionnaires either in person or by telephone with HACCP Special Team members. HACCP Special Team members administered the questionnaires to plant management in the volunteer plants.

- The first questionnaire was designed to measure Special Team activities *during the on-site visit*.
- The second questionnaire was designed to assess the time and effort the pilot plant spent on this activity - *outside time spent with the Special Team - by the end of the on-site visit*.

\* Hazard Analysis Critical Control Points (HACCP) is a process control system that identifies "critical" points in the food production process that should be controlled to prevent food safety hazards from occurring.

- The third questionnaire was administered to the Special Team *at the completion of plant-specific plan development* to gain additional information about their activities in plant-specific plan development.
- A fourth questionnaire was administered to plant management *at the completion of plant-specific plan development* to gain additional information about their activities in plant specific plan development.

Both Special Team members and plant staff were asked to report the amount of time they spent on activities to develop the plant-specific plan. Their answers were often vague and incomplete. Therefore, some times estimated in the report are based on the following assumptions:

All time spent at the initial on-site by Special Team members and plant personnel whether it was familiarizing FSIS inspectors and plant personnel with HACCP, developing the plant-specific model, touring the plant to match critical control points (CCPs) from the generic plan to the plant, or actually working with the plant-specific model was counted as time spent developing the plant-specific model. All these activities were necessary for plan development.

Special Team members did not isolate the amount of time they had spent preparing for an on-site visit from other HACCP activities, nor did they indicate when a travel day did not include a full day of travel. For this report the two activities are combined by counting each travel day as a preparation/travel day.

The report includes only the time spent developing the plant-specific plans during the baseline phase of the pilot tests. It does not include time spent modifying the plant-specific plans during the implementation phase.

### Report Plan

This report begins with a chapter describing the on-site visits and development of plant-specific plans for the three Refrigerated Foods pilot plants. The next chapter reports on the on-site visits and development of plant-specific plans for the three Cooked Sausage pilot plants. The third chapter describes on-site visits and development of plant-specific plans for the three Poultry Slaughter pilot plants. Detailed responses for each of the nine pilot plants keyed to the questionnaires are found in the Appendices. The report concludes with a overall summary of the on-site visits and development of plant-specific plans.



## II. REFRIGERATED FOODS PILOT PLANTS

### Introduction

This chapter briefly describes each of three Refrigerated Foods plants' experience with the on-site visit and plant-specific plan development. Each of the Refrigerated Foods plants were very different from one another in size, plant familiarity with HACCP, and specific product for the HACCP pilot. (See Appendix B for responses to all Refrigerated Foods questionnaires.)

### Refrigerated Foods - 1

This large chicken processing plant had already begun using HACCP type controls on its product, fully cooked chicken, before volunteering for the pilot project. The first on-site visit was held at this plant on June 10-11, 1991. The entire Special Team attended this session along with regional and area personnel. HACCP Special Team members used the model checklist to compare the generic plan to the plant-specific model, toured the plant and met with plant officials, including the quality control manager.

The plant management did not want to commit to a plant-specific plan at this meeting. They were intimidated by all the FSIS personnel who attended. They were concerned that any specific controls found in their plan would be turned into regulations. The two HACCP Special Team members assigned to the plant returned later for another visit to finish the plant-specific plan.

The two Special Team members each spent four days at the plant, four days of travel and preparation time, and approximately eight hours on the telephone with the plant for a total of approximately 17 days.

In addition to the four days spent with the Special Team at the on-site and later visit, the plant management spent time preparing the plan and four hours providing training to their staff.

The plant-specific plan for this plant was completed October 10, 1991.

### Refrigerated Foods - 2

This small plant used a different product flow from the generic model. The generic model was designed for a cooked and assembled product. This product, chicken mix in sauce, was assembled into a cooking vat, cooked and poured hot into bags. However, Special Team members determined that the differences were not enough to warrant changing the generic plan. This plant was a Total Quality Control (TQC) plant so the staff utilized their TQC programs to design the HACCP plan.

The on-site visit at this plant was held July 23-24, 1991. Special Team members used the model checklist, toured the plant, and met with plant management and the inspector-in-charge (IIC).

The two Special Team members spent two days at the on-site, one Special Team member spent an additional two days at the plant, four days each were spent on travel and preparation time, and time was spent on the telephone with the plant for a total of approximately 16 days.

In addition to the time spent with the Special Team, the plant spent three days developing the plant-specific plan and preparing for meeting with the Special Team.

The plant-specific plan for this plant was completed October 30, 1991.

### Refrigerated Foods - 3

The product involved in the HACCP pilot for this medium size plant, a beef and bean burrito, was not made every day so the amount of time needed to collect baseline data took longer than planned. The plant had been a problem plant several years ago, but it had acquired a new owner who was interested in participating in the pilot and had a quality control manager who was enthusiastic about the program.

An on-site visit at the plant was held August 12-14, 1991. Special Team members held an awareness session and toured the plant to compare the process of the product chosen for the HACCP pilot with the industry workshop model. Four plant employees attended the awareness training. Their HACCP plan was submitted twice, but it was returned for more specificity. A Special Team member visited the plant on a regular basis to work with the quality control manager.

The two Special Team members assigned to this plant spent three days at the on-site, an additional 11 hours were spent at other plant visits, phone calls with the plant totaled another seven hours and four days of travel and preparation time were spent for a total of approximately 16-17 days.

In addition to the time spent during Special Team visits and phone calls, the plant spent three days on plant-specific plan development.

The plant-specific plan for this plant was completed January 9, 1992.

### Summary

All three pilot plants included "receiving" as a CCP in their plant-specific plan although it was not included in the generic model developed at the workshop. As a result, the HACCP Special Team contacted the Refrigerated Foods Steering Committee to incorporate "receiving" as a CCP in the generic model.

The process of developing plant-specific plans for these plants took from three to five months from the date of the initial on-site visits until the plans were completed.



### III. COOKED SAUSAGE PILOT PLANTS

#### Introduction

This chapter briefly describes each of the three Cooked Sausage plants' experience with the on-site visit and plant-specific plan development. (See Appendix C for responses to all Cooked Sausage questionnaires.)

#### Cooked Sausage - 1

The on-site visit for this family owned and operated plant took place October 15-17, 1991. The Special Team used the model checklist to compare plant processes for producing its HACCP product, a meat frankfurter, with the generic model, toured the plant, and met with plant management and the IIC. The plant-specific plan was returned to the plant after its first submission for more specificity. FSIS personnel reviewing the plan indicated that the plant needed to designate who in the plant would perform monitoring and verification tasks at each CCP.

The two Special Team members assigned to this plant spent three days at the one-site, two days at a second visit, a day making phone calls and four days in travel and preparation time for a total of approximately 19 days.

In addition to the time spent with the Special Team, plant management said they had spent 24 days writing, typing, and modifying the plant-specific plan.

The plant-specific plan for this plant was completed May 4, 1992.

#### Cooked Sausage - 2

The on-site visit at the plant took place on January 21-23, 1992. The Special Team toured the plant to see if the process for producing their product, cooked skinless frankfurters, was applicable and met with plant management. The plant was not familiar with HACCP and had just begun a TQC program so it took some time to help them design their HACCP plan.

Data collection at this small plant took longer than planned as the HACCP product was not produced every day.

The two Special Team members assigned to this plant spent three days at the on-site, two days at a second visit, and four days in travel and preparation time for a total of approximately 18 days.

A new quality control manager was hired for this plant during the time the plant-specific plan was being prepared. The new manager said he spent 30 hours learning about HACCP and 30 hours writing the plan. The implementation phase began before the final plant-specific plan was approved.

The plant-specific plan for this plant was completed at the end of January, 1993.



### Cooked Sausage - 3

The on-site visit at this plant was held in two sessions, April 22-23, and April 27-29, 1992, because the plant was small and the employees who needed to attend the on-site could not all be spared at one time. Their HACCP product was a frankfurter in natural casing. The first meeting was attended by operations staff and the second by management. When the Special Team shared the results of the two groups, plant management were surprised by the differences in their perceptions of HACCP. That led to a good discussion between the groups.

The two Special Team members assigned to this plant spent six days at the on-site, two days at a second visit, and four days in travel and preparation time for a total of approximately 20 days.

In addition to time spent with the Special Team, plant owner estimated 20 hours had been spent preparing their plant-specific plan. The quality control manager who had written the plant-specific plan left the company so revisions were made by the company president.

The plant-specific plan for this plant was completed November 2, 1992.

### Summary

Following their experience with the Refrigerated Food pilot plants, Special Team members found it useful to have the HACCP quantitative evaluation task data collector attend the on-site visit at the pilot plants. In this way all people at the plant connected with the HACCP pilot were involved from the beginning and understood the reasons for each other's activities.

Plants took from six months to a year to complete their plant-specific plans.

## IV. POULTRY SLAUGHTER PILOT PLANTS

### Introduction

This chapter briefly describes each of the three Poultry Slaughter plants' experience with the on-site visit and plant-specific development. These were the first plants to pilot test HACCP slaughter operations, as the other six HACCP pilots were tests of processing operations. (See Appendix D for responses to all Poultry Slaughter questionnaires.)

All on-site visits for Poultry Slaughter pilot plants were held at the same time, May 26-29, 1992.

### Poultry Slaughter - 1

About 35 people attended the on-site visit at this large New Line Speed (NELS) plant. The Special Team gave a HACCP awareness presentation, toured the plant (in two groups) and matched the plant process for slaughtering whole young chickens to the generic model. No one from this plant had attended the Poultry Slaughter workshop so they had had no prior HACCP exposure. The entire plant slaughter process was under the HACCP pilot as all lines inhabit a common area during the process. Their plant was already using some additional food safety controlling steps not included in the generic model. The plant included these steps in their model.

The two Special Team members each spent four days at the plant, four days of travel and preparation time, and a number of hours on the telephone with the plant personnel for a total of approximately 17 days.

In addition to the four days spent with the Special Team at the on-site and later visit, the plant management spent six hours on meetings with staff and 66 hours developing the plan.

The plant-specific plan for this plant was completed July 30, 1992.

### Poultry Slaughter - 2

The Special Team met with FSIS inspectors and plant management to provide an introduction to HACCP, toured the plant and matched the generic plan to the plant process for slaughtering whole young chickens. This was the first plant to have developed a draft plant-specific plan prior to the on-site visit. They had had help from the quality control staff at another pilot plant which is owned by the same company. Their plant-specific plan did not contain all the steps in the generic model (i.e. packaging and storage). However, this was not a problem as this plant does not include those steps in its operations. Their entire plant operation was under the HACCP plan as their three lines share two chiller tanks.

The Special Team members each spent four days at the plant, four days of travel and preparation time, and a number of hours on the telephone with plant management for a total of approximately 17 days.

In addition to the four days spent with the Special Team at the on-site and later visit, the plant management spent half a day on telephone calls and two days developing the plant-specific plan and meeting with other plant personnel.



The plant-specific plan for this plant was completed May 27, 1992.

### Poultry Slaughter - 3

This plant was selected by its corporate management to participate as a HACCP pilot plant. However, no one had explained to plant staff what would be involved in participating as a pilot plant. During the on-site visit when the Special Team started going over the requirements for collecting sample birds, the plant wanted to end their participation. Eventually, however, the plant decided to continue participation.

The Special Team did continue with the usual procedures holding an awareness session, touring the plant, and matching the generic model to the plant process for slaughtering whole young chickens.

The Special Team each spent four days at the plant, four days of travel and preparation time, and a number of hours on the telephone with plant management for a total of approximately 17 days.

In addition to time spent with the Special Team, plant management spent 50 hours preparing their plant-specific plan.

The plant-specific plan for this plant was completed October 10, 1992.

### Summary

Since PBIS tasks have not been developed for slaughter, new tasks and recordkeeping methods had to be established by FSIS to monitor the progress of these pilot plants.

In addition to completing their regular procedure at the pilot plant on-site visit at each Poultry Slaughter pilot plant, the Special Team held awareness sessions to explain the HACCP study to FSIS on-line inspectors and plant personnel who wished to attend. Provisions were made to grant administrative overtime for inspectors who attended. Since the sessions were so well received and well attended, the Special Team planned to hold information sessions for the inspectors during in-plant training as well.

Plants spent one to five months to complete their plant-specific plans.



## V. SUMMARY FINDINGS

### Introduction

This chapter provides an overall summary and description of the on-site visits and development of plant-specific plans. It describes changes made to the original HACCP design, the applicability of generic models to plant-specific plans, the time and effort of both Special Team members and plant management on the adaption process, and general findings about the adaption process.

### Changes to Original Design

The original HACCP design for developing plant-specific plans envisioned that a plant would develop its plant-specific plan prior to an on-site visit of HACCP Special Team members. The plant-specific plan would then be compared with the generic model developed at the workshop during the Special Team visit at the pilot plant using the model checklist developed by FSIS.

In general, plants did not have plant-specific plans ready for review at the on-site visit. The original design evolved into a lengthier process as it became obvious that more time than a three-day meeting was necessary to develop a plant-specific HACCP plan. The initial visit became an introductory HACCP session at the plant. During the visit, Special Team members observed how the product/process was prepared. In addition, plant management learned the process of developing a HACCP plan and worked through a few CCPs with Special Team members.

After the on-site visit, the HACCP data collector began collecting baseline data for the study while plant management completed the plant-specific plan for FSIS review with help from the Special Team members assigned to their plant. The Special Team considered the entire three months of baseline data collection as part of the on-site/plant-specific-plan development period. The Special Team regarded the process as one of gradual revision over a period of time.

In order for a plant-specific plan to be approved, all the questions on the HACCP checklist must have been answered in the affirmative for the plan. A plan could contain a few "No" responses at the start of the implementation phase at the pilot plant, but it must have contained all "Yes" responses before the operational phase could begin. This process took up to one year, but averaged five months after an initial on-site visit.

### Applicability of Generic Model to Plant-Specific Plans

In general, generic models developed at the workshops fitted well with actual processes in the pilot plants. Only one generic model appeared to need any modification following plant-specific plan development.

All three Refrigerated Foods pilot plants included "receiving" as a CCP in their plant-specific plans. The Special Team concluded that "receiving" should be included as a CCP in the generic model. The steering committee coordinator on the Special Team contacted the Refrigerated Foods Steering Committee to add "receiving" as a CCP to the Refrigerated Foods generic plan.

Both the Cooked Sausage and Poultry Slaughter generic models were applicable to the pilot plants. In some cases, pilot plants' flowcharts were in slightly different order from the generic model, but all CCPs found in the generic model were included in the plant-specific plans, if those processing steps were part of a plant's process.

#### Time and Effort of the HACCP Special Team

Prior to the on-site, Special Team members prepared HACCP familiarization materials. They presented these during the on-site visit in addition to touring the plant to compare the generic model CCPs to the HACCP product and meeting with plant management. Special Team members generally made another visit to each of their plants as part of the development process. In addition, calls were made between the team and plant management to answer questions about the HACCP study and the plant-specific plan. Special Team members worked over several months with each plant management to bring the plant-specific plans up to acceptable levels.

The total amount of time the Special Team spent helping plants develop their plant-specific plans averaged 18 days. This included four travel days, four or five days at the plant and a half day on the telephone for each of the two members.

#### Time and Effort of Plant Management

The quality control manager of the plant was usually responsible for developing the HACCP plant-specific plan. The quality control manager was aided in the development of the plan by the quality control staff and/or other plant management including in some plants the executive chef, laboratory staff, and others. The amount of time needed for plan development depended in part on how familiar the quality control manager was with HACCP, PLANT, Partial Quality Control (PQC), or other process control systems. Development went more quickly for those familiar with these concepts. Plan preparers had most difficulty performing a hazard analysis of the process and being specific enough about who was going to perform monitoring and evaluation tasks at each CCP.

The amount of time spent by plant personnel in developing their plant-specific plan ranged from three to 30 days in addition to the approximately four days spent with the HACCP Special Team to develop the plan. It included time spent developing the plan and other related activities such as familiarizing plant staff with the plan. Several quality control managers said that the next HACCP plan they prepared would be much easier to do as they would know how to go about it: what sorts of hazards to identify, what sorts of controls to use, and how to monitor the plan.

In addition to their quality control staff, plants also sent other management people to the on-site orientation. As many as ten people attended at some plants representing up to 30 days of employee time.



### Summary Findings:

1. *The on-site visit became a HACCP orientation session and an instruction session on how to do a hazard analysis and develop CCPs. This was especially important for those plants where no one had attended a HACCP workshop and no one was familiar with HACCP.*
2. *The generic models developed at the workshops were applicable to the plants. Only in the case of Refrigerated Foods was it necessary to consider alteration of the generic model.*
3. *It was important to have the HACCP data collector attend the on-site session. In that way, everyone involved in the pilot understood the purpose of the HACCP study and was aware of all participants' roles.*
4. *The time it took a plant to develop a plant-specific plan depended on its familiarity with HACCP, PLANT, and similar programs. Some plants were already using some HACCP type controls while others had no knowledge of HACCP and were only beginning to be aware of PLANT programs. Plant personnel said that the next HACCP plan they prepared would be much easier to do after their experience with the first one. The hazard analysis, which was the most difficult aspect of the development for plants, became easier with the changes made by the National Advisory Committee on Microbiological Criteria for Food in Principle #1 of the HACCP Principles for Food Production.*





## **APPENDIX A**

### **HACCP SPECIAL TEAM PILOT PLANT ASSIGNMENTS**

Special Team Director: Dr. Dorothy Stringfellow

#### **Refrigerated Foods Plants**

RF-1	Robert Savage/Alice Johnson
RF-2	Nathaniel Clark/John Carlson
RF-3	Walter McEvers/Robert Baele

#### **Cooked Sausage**

CS-1	Nathaniel Clark/John Carlson
CS-2	Robert Savage/Alice Johnson
CS-3	Walter McEvers/Robert Baele

#### **Poultry Slaughter**

PS-1	Nathaniel Clark/John Carlson
PS-2	Robert Savage/Alice Johnson
PS-3	Walter McEvers/Robert Baele

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## **APPENDIX B**

### **RESPONSES TO REFRIGERATED FOODS QUESTIONNAIRE**

Refrigerated Foods - 1

Refrigerated Foods - 2

Refrigerated Foods - 3



**Questionnaire 1A:** *This questionnaire was designed to measure Special Team activities during the On-Site Visit.*

**PART 1: Applicability of Generic HACCP Model**

**Q-1.** What activities did you perform to determine the applicability of the Generic HACCP Model to this plant? Please specify activity (e.g., used checklists, toured plant, met with various people, etc.) and the amount of time expended.

Special Team members used the checklists, toured the plant, and met with plant officials including the Quality Control Manager. The activities went well. "It is a good plant."

The entire Special Team met with plant management for two days, June 10-11, 1991.

**Q-2.** Based on the On-Site Visit, was the generic model applicable to this plant?

☒ **X** Yes, Completely Applicable (Skip to **PART 2**)      ☐ Yes, Somewhat Applicable (Continue with Q-3)      ☐ No, Not At All Applicable (Continue with Q-3)

**Q-3.** What were the difficulties/problems encountered?

No difficulties.

**Q-4.** If you marked *Somewhat* or *No* in Q-2, whom did you contact about the difficulties/problems?

☐ HACCP Special Team On-Site Coordinator

☐ HACCP Special Team Director

☐ Other HACCP Special Team Member(s): (name(s)) \_\_\_\_\_

☐ Other FSIS Personnel (IIC, Area, Regional, personnel, etc.)

☐ Plant Personnel (Management, QC/Production, etc.)

☐ Other: (title(s)/name(s)) \_\_\_\_\_

**Q-5.** What activities were undertaken to remedy these difficulties/problems (meetings, phone calls, etc.)? Please specify the types and extent of contact with each of the people/groups marked in Q-4.

N/A

**Q-6.** To address the difficulties noted in Q-3, did the pilot plant make any changes to their processes/procedures to enable them to better fit the Generic HACCP Model?

☐ Yes    ☒ **X** No (Continue with Q-7)

**Q-7.** To address the difficulties noted in Q-3, were any changes made to the Generic HACCP Model?

☐ Yes    ☒ **X** No (Continue with Q-8)

**Q-8.** By what date were all changes incorporated into the generic model? \_\_\_\_\_



The HACCP Special Team requested that the Refrigerated Foods Steering Committee include "receiving" as a CCP in the Refrigerated Foods generic model. To date the committee has not met to make the change.

**PART 2: Plant-Specific HACCP Plan**

**Q-9.** Did the pilot plant have an acceptable plant-specific plan in place at the start of the On-Site Visit?

☐ Yes, Completely Acceptable (Skip to Q-11)      ☐ Yes, Partially Acceptable (Continue with Q-10)      ☒ No Plan/Unacceptable Plan (Continue with Q-10)

**Q-10.** If you marked *Partially Acceptable* or *No/Unacceptable* in Q-9, what did you do to develop or initiate development of a plant-specific HACCP plan (meetings/phone calls, etc.: how many, how long, with whom, etc.)?

At the initial meeting, the plant didn't want to commit to a specific plan in front of twenty or more FSIS staff. Plant management was also fearful of any commitment being turned into regulations.

**Q-11.** Was a plant-specific HACCP plan completed by the end of the On-Site Visit?

☐ Yes (Continue with Q-12)      ☒ No

If no, please specify what remains to be done and when do you anticipate such a plan to be completed ready for implementation.

Two Special Team members returned a few weeks later to work with the plant on a plant specific plan. They met with the plant for two days. The plant-specific plan was completed October 10, 1991.

**Q-12.** Were there any other Special Team activities that occurred during the On-site Visit concerning development of a plant-specific plan based on the generic model that we haven't discussed?

Baseline data collection began July 22, 1991.

**Questionnaire 1B:** *This questionnaire was designed to assess the time and effort of pilot plants in developing the plant-specific plans prior to and during the On-Site Visit.*

---

1. Who on your staff worked on the adaptation of the generic HACCP model to a plant-specific HACCP plan? (titles/numbers of people involved, etc.)

Quality Control (QC) Manager

Plant Manager

QC Supervisors - 2

Plant Superintendent

2. What activities were undertaken to develop the plant-specific plan (e.g., meetings, phone calls, training sessions, etc.)? What was the purpose of each activity? What topics were covered and what was accomplished by each activity? How long were the meetings, etc.? Was there preparation time for the activities? If so, how much time?

Two training sessions were held for plant employees. The first was a 45 minute session for plant supervisors to describe HACCP, how it affects the plant and their role. The second training session was for all QC technicians to discuss their duties and role in HACCP. This took about two hours.

3. Were there any other pilot plant activities concerning the development of a plant-specific plan based on the generic model that occurred prior to or during the On-Site Visit that we haven't discussed?

No.

**Questionnaire 2A:** *This questionnaire was designed for the Special Team members at the completion of the plant-specific plan.*

---

**Q-1.** Since the On-Site Visit, what did you do to continue the development of the plant-specific HACCP plan? Please be specific (meetings, phone calls, etc.: how many, how long, with whom).

**Phone conversations were held with the plant about the plant-specific plan.**

**Q-2.** When was the plant-specific HACCP plan completed? **October 10, 1991**

**Q-3.** Were there any other Special Team activities that occurred after the On-Site Visit concerning development of a plant-specific plan based on the generic model that we haven't discussed? If yes, please specify.

**No.**



**Questionnaire 2B:** *This questionnaire was designed for plant management at the completion of the plant-specific plan.*

---

- 1. Since the On-Site Visit, what activities were undertaken to develop the plant-specific model (e.g., meetings, phone calls, training sessions, etc.)? What was the purpose of each activity? What topics were covered and what was accomplished by each activity? How long were the meetings, etc.? Was there preparation time for the activities? If so, how much time?

The plant held meetings to update junior plant personnel regarding changes to the HACCP plan and to up-date supervisors on the HACCP Agenda. They estimated 45 minutes for this activity.

- 2. Since the On-Site Visit, have there been any changes in the numbers or types staff (titles) who worked on the development of a plant-specific HACCP plan based on the generic HACCP model? If yes, please specify.

No.

- 3. Were there any other pilot plant activities that occurred after the On-Site Visit concerning development of a plant-specific plan based on the generic model that we haven't discussed? If yes, please explain.

No.



**Questionnaire 1A:** *This questionnaire was designed to measure Special Team activities during the On-Site Visit.*

**PART 1: Applicability of Generic HACCP Model**

**Q-1.** What activities did you perform to determine the applicability of the Generic HACCP Model to this plant? Please specify activity (e.g., used checklists, toured plant, met with various people, etc.) and the amount of time expended.

Special Team members used a checklist developed by the HACCP Special Team to compare plant processes to the generic model, toured the plant, and met with plant management and the inspector-in-charge (IIC).

The Special Team met with plant management July 23-24, 1991, to develop the plant-specific plan.

**Q-2.** Based on the On-Site Visit, was the generic model applicable to this plant?

☐ Yes, Completely Applicable (Skip to PART 2)    ☒ Yes, Somewhat Applicable (Continue with Q-3)    ☐ No, Not At All Applicable (Continue with Q-3)

**Q-3.** What were the difficulties/problems encountered? Please specify.

There were some differences between the generic model and this product process, but they were not sufficient to warrant changing the generic plan. There were differences in how the product was made. The generic model was designed for a cooked and assembled product. This product was assembled into a cooking vat, cooked and poured hot into bags.

**Q-4.** If you marked *Somewhat* or *No* in Q-2, whom did you contact about the difficulties/problems? (Check all that apply.)

☒ HACCP Special Team On-Site Coordinator

☒ HACCP Special Team Director

☒ Other HACCP Special Team Member(s): (name(s)) Robert Savage, entire Special Team

☐ Other FSIS Personnel (IIC, Area, Regional, personnel, etc.)

☒ Plant Personnel (Management, QC/Production, etc.) Plant manager

☐ Other: (title(s)/name(s)) \_\_\_\_\_

**Q-5.** What activities were undertaken to remedy these difficulties/problems (meetings, phone calls, etc.)? Please specify the types and extent of contact with each of the people/groups marked in Q-4.

A phone call was made to Dr. Leary, Special Team Director, and Robert Savage to determine if changes in the generic model needed to be made because of the difference in product flow.

Conference call with Special Team Director July 24, 1991. Approximate time 30 minutes.



Q-6. To address the difficulties noted in Q-3, did the pilot plant make any changes to their processes/procedures to enable them to better fit the Generic HACCP Model?

\_\_\_\_\_ Yes    ☒ No (Continue with Q-7)

Q-7. To address the difficulties noted in Q-3, were any changes made to the Generic HACCP Model?

\_\_\_\_\_ Yes    ☒ No (Continue with Q-8)

Recommendations were made through Special Team Coordinator to Steering Committee for "receiving" to be added to the generic model as a critical control point (CCP).

Q-8. By what date were all changes incorporated into the generic model? \_\_\_\_\_

To date the generic model has not been revised.

**PART 2: Plant-Specific HACCP Plan**

Q-9. Did the pilot plant have an acceptable plant-specific plan in place at the start of the On-Site Visit?

\_\_\_\_\_ Yes, Completely Acceptable (Skip to Q-11)    ☒ Yes, Partially Acceptable (Continue with Q-10)    \_\_\_\_\_ No Plan/Unacceptable (Continue with Q-10)

Q-10. If you marked *Partially Acceptable* or *No/Unacceptable* in Q-9, what did you do to develop or initiate development of a plant-specific HACCP plan (meetings/phone calls, etc.: how many, how long, with whom, etc.)?

Their flow chart needed to be changed as it included some non-safety issues. This was pointed out to the plant management.

A combination of meetings and telephone conversations with the IIC and plant management were held to develop the plant-specific plan.  
(See Questionnaire 2A.)

Q-11. Was a plant-specific HACCP plan completed by the end of the On-Site Visit?

\_\_\_\_\_ Yes (Continue with Q-12)    ☒ No

If no, please specify what remains to be done and when you anticipate such a plan to be completed and ready for implementation.

Special Team members reviewed thoroughly the first two CCPs with plant management and were satisfied that plant management could finish the rest of the CCPs during the baseline data collection phase of the pilot.

The majority of the plant-specific plan was completed, only minor revisions were necessary.

Q-12. Were there any other Special Team activities that occurred during the On-site Visit concerning development of a plant-specific plan based on the generic model that we haven't discussed? If yes, please explain.

Special Team members held a HACCP awareness training session during which time the entire process of developing a HACCP plan was explained to the plant management. The plant staff then took their HACCP plan and looked at each part in light of the information they had received.

**Questionnaire 1B:** *This questionnaire was designed to assess the time and effort of pilot plants in developing the plant-specific plans prior to and during the On-Site Visit.*

1. Who on your staff worked on the adaptation of the generic HACCP model to a plant-specific HACCP plan? (titles/numbers of people involved, etc.)

Plant Manager

Quality Control Manager

2. What activities were undertaken to develop the plant-specific plan (e.g., meetings, phone calls, training sessions, etc.)? What was the purpose of each activity? What topics were covered and what was accomplished by each activity? How long were the meetings, etc.? Was there preparation time for the activities? If so, how much time?

See Questionnaire 2B.

3. Were there any other pilot plant activities concerning the development of a plant-specific plan based on the generic model that occurred prior to or during the On-Site Visit that we haven't discussed? If yes, please explain.

No.

**Questionnaire 2A:** *This questionnaire was designed for the Special Team members at the completion of the plant-specific plan.*

- Q-1. Since the On-Site Visit, what did you do to continue the development of the plant-specific HACCP plan? Please be specific (meetings, phone calls, etc.: how many, how long, with whom).

Dr. Clark met again with the plant September 3-5, 1991, to assist in the development of the plant-specific plan. In addition, he talked to the plant on the phone eight times and Mr. Carlson talked to the plant four times.

On October 30, 1991, Mr. Carlson and Dr. Clark had a conference call with the plant management about revisions to the plant-specific plan.

Approximate time = Sixteen hours.

Approximate time = Eight calls @ 20 minutes per call = 160 minutes.

- Q-2. When was the plant-specific HACCP plan completed? \_\_\_\_\_ October 30, 1991 \_\_\_\_\_

- Q-3. Were there any other Special Team activities that occurred after the On-Site Visit concerning development of a plant-specific plan based on the generic model that we haven't discussed? If yes, please specify.

Data collection took longer than the three months time period because the HACCP product at the plant was not made everyday.



**Questionnaire 2B:** *This questionnaire was designed for plant management at the completion of the plant-specific plan.*

1. Since the On-Site Visit, what activities were undertaken to develop the plant-specific model (e.g., meetings, phone calls, training sessions, etc.)? What was the purpose of each activity? What topics were covered and what was accomplished by each activity? How long were the meetings, etc.? Was there preparation time for the activities? If so, how much time?

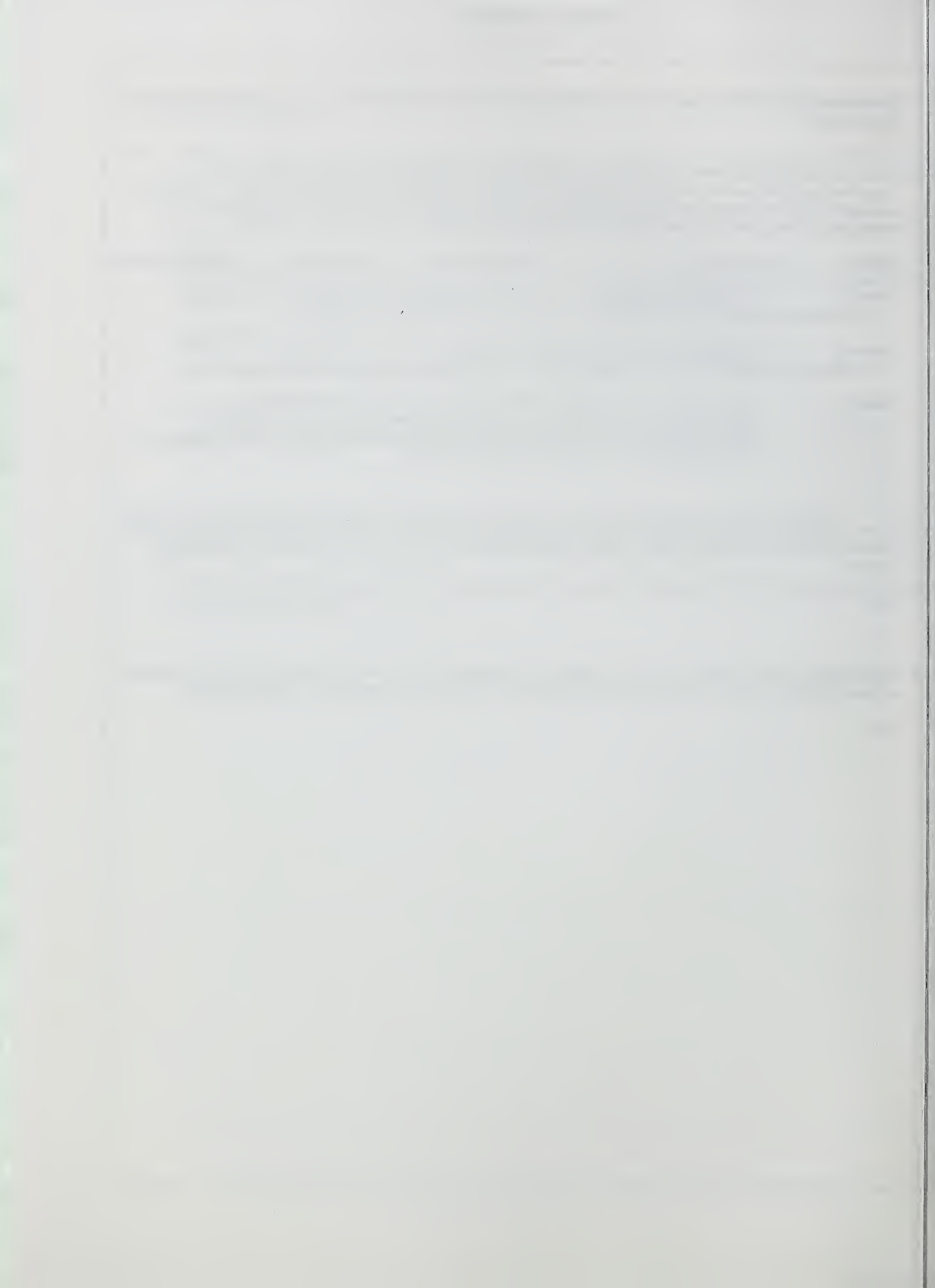
<i>Activity</i>	<i>Purpose/Topic</i>	<i>Accomplishments</i>	<i>Time in Activity</i>	<i>Preparation Time</i>
Meeting (Meetings were held with USDA HACCP Special Team Members and IIC)	Develop specific plan	Refined plan	4 days	2 days
Meeting (Meeting with Special Team members, Regional Coordinator, PIC Area, CS and IIC)	Changes to plant specific plan	Corrected	1 day	1 day
Meeting	Evaluation and completion of Phase II Implementation Checklist and on-site questionnaire that determines the approved plant specific HACCP plan and that all monitoring procedures are correct and relevant and according to instructions received from the Special Team.			

2. Since the On-Site Visit, have there been any changes in the numbers or types staff (titles) who worked on the development of a plant-specific HACCP plan based on the generic HACCP model? If yes, please specify.

No.

3. Were there any other pilot plant activities that occurred after the On-Site Visit concerning development of a plant-specific plan based on the generic model that we haven't discussed? If yes, please explain.

No.



**Questionnaire 1A:** *This questionnaire was designed to measure Special Team activities during the On-Site Visit.*

**PART 1: Applicability of Generic HACCP Model**

**Q-1.** What activities did you perform to determine the applicability of the Generic HACCP Model to this plant? Please specify activity (e.g., used checklists, toured plant, met with various people, etc.) and the amount of time expended.

Prior to the awareness On-Site, the Circuit Supervisor had approached the plant to see if it would consider being a pilot plant. Robert Baele, Special Team member, visited with plant personnel.

The On-site took place on August 12-14, 1991. HACCP Special Team members met with the FSIS people attending the On-Site first and then met with the plant and FSIS people together. The group toured the plant comparing the generic flowchart developed at the workshop with the plant-specific process itself.

The Special Team met with plant management for 3 days.

**Q-2.** Based on the On-Site Visit, was the generic model applicable to this plant?

☒ Yes, Completely Applicable (Skip to PART 2)      ☐ Yes, Somewhat Applicable (Continue with Q-3)      ☐ No, Not At All Applicable (Continue with Q-3)

**Q-3.** What were the difficulties/problems encountered? Please specify.

No difficulties.

**Q-4.** If you marked *Somewhat* or *No* in Q-2, whom did you contact about the difficulties/problems? (Check all that apply.)

☐ HACCP Special Team On-Site Coordinator

☐ HACCP Special Team Director

☐ Other HACCP Special Team Member(s): (name(s)) \_\_\_\_\_

☐ Other FSIS Personnel (IIC, Area, Regional, personnel, etc.)

☐ Plant Personnel (Management, QC/Production, etc.)

☐ Other: (title(s)/name(s)) \_\_\_\_\_

**Q-5.** What activities were undertaken to remedy these difficulties/problems (meetings, phone calls, etc.)? Please specify the types and extent of contact with each of the people/groups marked in Q-4.

N/A

**Q-6.** To address the difficulties noted in Q-3, did the pilot plant make any changes to their processes/procedures to enable them to better fit the Generic HACCP Model?

☐ Yes    ☒ No (Continue with Q-7)



Q-7. To address the difficulties noted in Q-3, were any changes made to the Generic HACCP Model?

\_\_\_\_ Yes    ☒ No (Continue with Q-8)

"Receiving" was a CCP in this plant. The Special Team has requested that the Steering Committee to address adding "receiving" as a CCP to the generic model. The Refrigerated Foods Steering Committee has taken no action as yet.

Q-8. By what date were all changes incorporated into the generic model? \_\_\_\_\_

**PART 2: Plant-Specific HACCP Plan**

Q-9. Did the pilot plant have an acceptable plant-specific plan in place at the start of the On-Site Visit?

\_\_\_\_ Yes, Completely Acceptable (Skip to Q-11)    \_\_\_\_ Yes, Partially Acceptable (Continue with Q-10)    ☒ No Plan/Unacceptable (Continue with Q-10)

Q-10. If you marked *Partially Acceptable* or *No/Unacceptable* in Q-9, what did you do to develop or initiate development of a plant-specific HACCP plan (meetings/phone calls, etc.: how many, how long, with whom, etc.)?

During the On-Site, Special Team members met with plant personnel providing them with information to use to develop their plant-specific plan.

Q-11. Was a plant-specific HACCP plan completed by the end of the On-Site Visit?

\_\_\_\_ Yes (Continue with Q-12)    ☒ No

If no, please specify what remains to be done and when you anticipate such a plan to be completed and ready for implementation.

Plan needed to be written.

Q-12. Were there any other Special Team activities that occurred during the On-site Visit concerning development of a plant-specific plan based on the generic model that we haven't discussed? If yes, please explain.

No.

**Questionnaire 1B:** *This questionnaire was designed to assess the time and effort of pilot plants in developing the plant-specific plans prior to and during the On-Site Visit.*

---

- 1. Who on your staff worked on the adaptation of the generic HACCP model to a plant-specific HACCP plan? (titles/numbers of people involved, etc.)

Quality Control Manager

Vice-president for Operations

- 2. What activities were undertaken to develop the plant-specific plan (e.g., meetings, phone calls, training sessions, etc.)? What was the purpose of each activity? What topics were covered and what was accomplished by each activity? How long were the meetings, etc.? Was there preparation time for the activities? If so, how much time?

The Quality Control Manager and Vice President for Operations met with the HACCP Special Team to decide on the HACCP product for this pilot test. The Quality Control Manager took the flipchart sheets used at the awareness training and spent three days putting together the plant-specific plan based on the generic model. The plan was submitted twice to FSIS and accepted the third time.

The Quality Control Manager said determining the hazards was the most difficult part of developing the plant-specific plan.

- 3. Were there any other pilot plant activities concerning the development of a plant-specific plan based on the generic model that occurred prior to or during the On-Site Visit that we haven't discussed? If yes, please explain.

No.



**Questionnaire 2A:** *This questionnaire was designed for the Special Team members at the completion of the plant-specific plan.*

- Q-1.** Since the On-Site Visit, what did you do to continue the development of the plant-specific HACCP plan? Please be specific (meetings, phone calls, etc.: how many, how long, with whom).

The Special Team used the checklist to determine if the plant-specific plan was complete. They did this in stages, slowly getting the plan to the point where it could be approved. Robert Baele made additional visits to the plant to help management make changes based on the checklist. The IIC worked with the process also. The Special Team thought the most difficult part of developing the plan for the plant was keeping the processes separate.

Additional meetings and phone conversations were held with plant management. The plan was sent back from Washington, D.C., twice for revision for lack of specificity.

Five plant visits to discuss plant-specific plan 11 hours

62 phone calls from August to March 7 1/2 hours

- Q-2.** When was the plant-specific HACCP plan completed? January 9, 1992

- Q-3.** Were there any other Special Team activities that occurred after the On-Site Visit concerning development of a plant-specific plan based on the generic model that we haven't discussed? If yes, please specify.

One Special Team member thought there were too many people participating in the plant walk through during the On-Site. The HACCP Special Team members assigned to this plant made some changes in the plans for their next On-Site. Based on this experience, their next On-Site would not be as structured. They wouldn't meet separately with FSIS inspectors before meeting with the plant management. One Special Team member felt more people from the line who would be performing the monitoring functions should attend HACCP awareness training sessions.



**Questionnaire 2B:** *This questionnaire was designed for plant management at the completion of the plant-specific plan.*

---

- 1. Since the On-Site Visit, what activities were undertaken to develop the plant-specific model (e.g., meetings, phone calls, training sessions, etc.)? What was the purpose of each activity? What topics were covered and what was accomplished by each activity? How long were the meetings, etc.? Was there preparation time for the activities? If so, how much time?

**According to the plant Quality Control Manager, no changes were made in the plant-specific plan since the on-site. (See Questionnaire 2A for information about activities after the On-Site.)**

- 2. Since the On-Site Visit, have there been any changes in the numbers or types staff (titles) who worked on the development of a plant-specific HACCP plan based on the generic HACCP model? If yes, please specify.

No.

- 3. Were there any other pilot plant activities that occurred after the On-Site Visit concerning development of a plant-specific plan based on the generic model that we haven't discussed? If yes, please explain

**The Quality Control Manager said he had had prior HACCP experience. He found it difficult to identify the hazards and CCPs so he could see how someone unfamiliar with HACCP would find it very difficult.**



## **APPENDIX C**

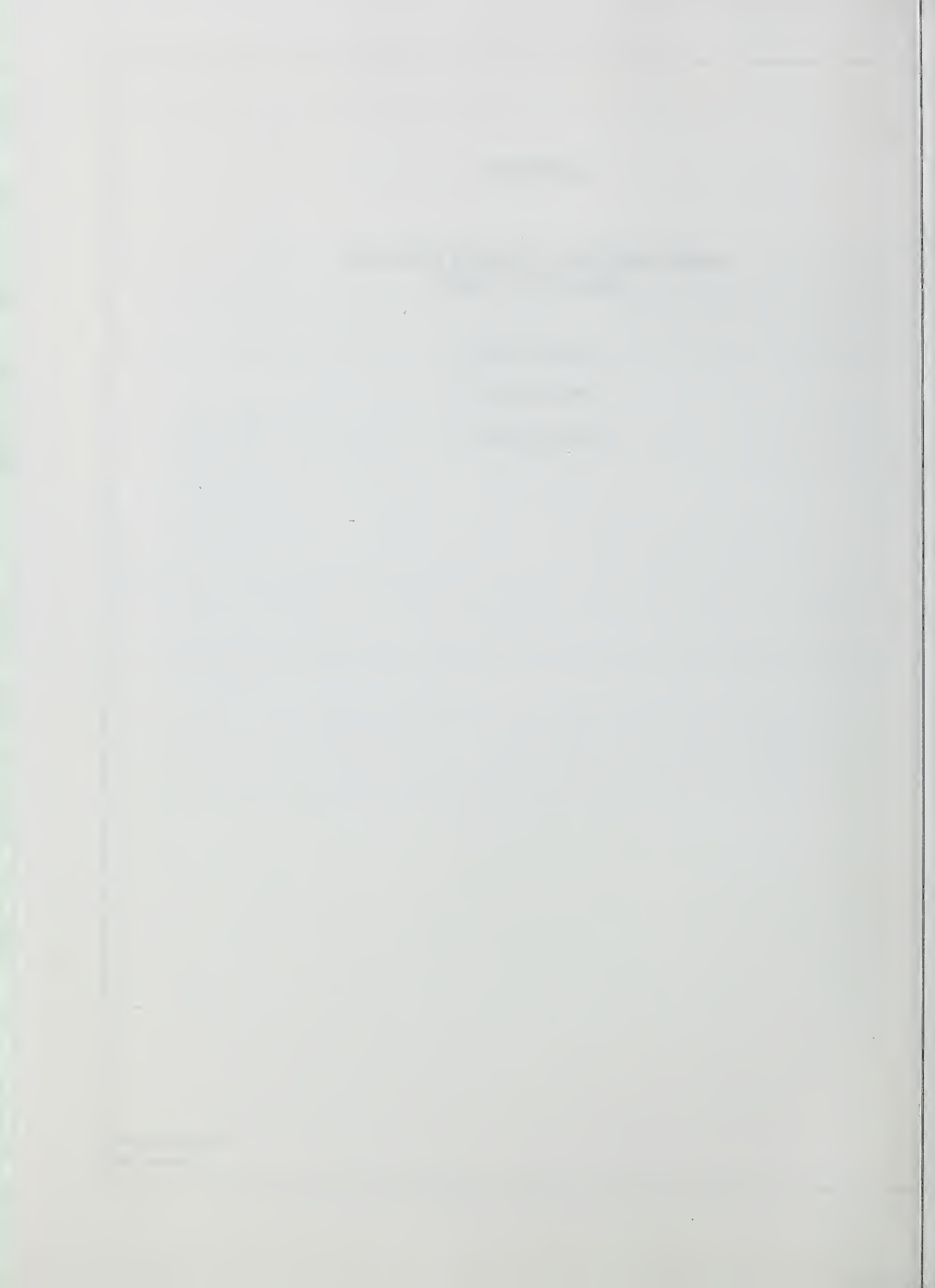
### **RESPONSES TO COOKED SAUSAGE QUESTIONNAIRE**

Cooked Sausage - 1

Cooked Sausage - 2

Cooked Sausage - 3





**Questionnaire 1A:** *This questionnaire was designed to measure Special Team activities during the On-Site Visit.*

**PART 1: Applicability of Generic HACCP Model**

**Q-1.** What activities did you perform to determine the applicability of the Generic HACCP Model to this plant? Please specify activity (e.g., used checklists, toured plant, met with various people, etc.) and the amount of time expended.

The Special Team used a checklist developed by the HACCP Special Team to compare plant processes with the generic model. The Special Team members also presented an HACCP awareness session, toured the plant, and met with plant management and the inspector-in-charge (ICC).

The Special Team spent three days with plant management on October 15-17, 1991.

**Q-2.** Based on the On-Site Visit, was the generic model applicable to this plant?

☒ **X** Yes, Completely Applicable (Skip to PART 2)      ☐ Yes, Somewhat Applicable (Continue with Q-3)      ☐ No, Not At All Applicable (Continue with Q-3)

**Q-3.** What were the difficulties/problems encountered? Please specify.

No difficulties.

**Q-4.** If you marked *Somewhat* or *No* in Q-2, whom did you contact about the difficulties/problems? (Check all that apply.)

☐ HACCP Special Team On-Site Coordinator

☐ HACCP Special Team Director

☐ Other HACCP Special Team Member(s): (name(s)) \_\_\_\_\_

☐ Other FSIS Personnel (IIC, Area, Regional, personnel, etc.)

☐ Plant Personnel (Management, QC/Production, etc.)

☐ Other: (title(s)/name(s)) \_\_\_\_\_

**Q-5.** What activities were undertaken to remedy these difficulties/problems (meetings, phone calls, etc.)? Please specify the types and extent of contact with each of the people/groups marked in Q-4. (For example: an estimate such as "5 phone calls to the Special Team On-Site Coordinator, averaging 15 minutes each" would be an appropriate description.)

N/A

**Q-6.** To address the difficulties noted in Q-3, did the pilot plant make any changes to their processes/procedures to enable them to better fit the Generic HACCP Model?

☐ Yes      ☐ No (Continue with Q-7)

N/A

Q-7. To address the difficulties noted in Q-3, were any changes made to the Generic HACCP Model?

N/A

\_\_\_\_ Yes \_\_\_\_ No (Continue with Q-8)

Q-8. By what date were all changes incorporated into the generic model? N/A

**PART 2: Plant-Specific HACCP Plan**

Q-9. Did the pilot plant have an acceptable plant-specific plan in place at the start of the On-Site Visit?

\_\_\_\_ Yes, Completely Acceptable  
(Skip to Q-11)

\_\_\_\_ Yes, Partially Acceptable  
(Continue with Q-10)

NO No Plan/Unacceptable Plan  
(Continue with Q-10)

Q-10. If you marked *Partially Acceptable* or *No/Unacceptable* in Q-9, what did you do to develop or initiate development of a plant-specific HACCP plan (meetings/phone calls, etc.: how many, how long, with whom, etc.)?

The Special Team held meetings and telephone conversations with the IIC and plant management. They worked closely with plant management both during the initial On-Site visit and at a follow-up meeting on February 5-6, 1992.

The Special Team spent two days each on follow-up visits.

Q-11. Was a plant-specific HACCP plan completed by the end of the On-Site Visit?

\_\_\_\_ Yes (Continue with Q-12)

X No

If no, please specify what remains to be done and when you anticipate such a plan to be completed and ready for implementation.

The plant-specific plan was completed May 4, 1992.

Q-12. Were there any other Special Team activities that occurred during the On-site Visit concerning development of a plant-specific plan based on the generic model that we haven't discussed? If yes, please explain.

No.



**Questionnaire 1B:** *This questionnaire was designed to assess the time and effort of pilot plants in developing plant-specific plans prior to and during the On-Site Visit.*

---

- Q-1. Who on your staff worked on the adaptation of the generic HACCP model to a plant-specific HACCP plan? (titles/numbers of people involved, etc.)

Quality Control Manager and his staff:

Two Microbiologist/Quality Control Technicians

Two in-plant Quality Control Technicians.

- Q-2. What activities were undertaken to develop the plant-specific plan (e.g., meetings, phone calls, training sessions, etc.)? What was the purpose of each activity? What topics were covered and what was accomplished by each activity? How long were the meetings, etc.? Was there preparation time for the activities? If so, how much time?

Initially all the quality-control staff sat down and discussed HACCP. Then the quality control manager, and the two Micro/QC people developed the plant-specific plan. They had to work after hours and at night to use their one computer which was running formulas all day. To establish time/temperature limits, they looked at ten previous production sheets for each reading. They had problems listing on the plan the employee who was responsible for verification and evaluation tasks at some CCPs.

Write plan = 180 hrs.

Changes and typing = 55 hrs. (One person said she had used 23 hrs of overtime to type up the HACCP plan.)

Phone calls = 1 1/2 hrs.

- Q-3. Were there any other pilot plant activities concerning the development of a plant-specific plan based on the generic model that occurred prior to or during the On-Site Visit that we haven't discussed? If yes, please explain.

No.

**Questionnaire 2A:** *This questionnaire was designed for the Special Team members at the completion of the plant-specific plan.*

---

- Q-1.** Since the On-Site Visit, what did you do to continue the development of the plant-specific HACCP plan? Please be specific (meetings, phone calls, etc.: how many, how long, with whom).

**Combination of meetings with the IIC and plant management and telephone calls to same.**

**Approximate time = 16 hours**

**Approximate time = 10 calls @ 20 minutes each = 200 minutes**

- Q-2.** When was the plant-specific HACCP plan completed? May 4, 1992

- Q-3.** Were there any other Special Team activities that occurred after the On-Site Visit concerning development of a plant-specific plan based on the generic model that we haven't discussed? If yes, please specify.

**No.**

**Questionnaire 2B:** *This questionnaire was designed for plant management at the completion of the plant-specific plan.*

---

- Q-1.** Since the On-Site Visit, what activities were undertaken to develop the plant-specific model (e.g., meetings, phone calls, training sessions, etc.)? What was the purpose of each activity? What topics were covered and what was accomplished by each activity? How long were the meetings, etc.? Was there preparation time for the activities? If so, how much time?

The plan was sent back for revisions. More specificity was needed in the plan. In particular, the plant needed to designate which employee did which task at each CCP. The plan was sent back to FSIS with the changes incorporated in it. It was returned again for a few minor changes.

Changes to plan and forms updating = 25 hrs.

- Q-2.** Since the On-Site Visit, have there been any changes in the numbers or types staff (titles) who worked on the development of a plant-specific HACCP plan based on the generic HACCP model? If yes, please specify.

No.

- Q-3.** Were there any other pilot plant activities that occurred after the On-Site Visit concerning development of a plant-specific plan based on the generic model that we haven't discussed? If yes, please explain.

The Quality Control Manager had attended the HACCP workshop. The assistant had some food science training. The other quality control staff were lab technicians.





**Questionnaire 1A:** *This questionnaire was designed to measure Special Team activities during the On-Site Visit.*

**PART 1: Applicability of Generic HACCP Model**

**Q-1.** What activities did you perform to determine the applicability of the Generic HACCP Model to this plant? Please specify activity (e.g., used checklists, toured plant, met with various people, etc.) and the amount of time expended.

The date of the on-site was January 21-23, 1992.

The Special Team toured the plant to see if the process was applicable to the generic model, looked at the layout of the plant and the other products produced, met with plant management.

**Q-2.** Based on the On-Site Visit, was the generic model applicable to this plant?

☒ **X** Yes, Completely Applicable (Skip to **PART 2**)      ☐ Yes, Somewhat Applicable (Continue with **Q-3**)      ☐ No, Not At All Applicable (Continue with **Q-3**)

**Q-3.** What were the difficulties/problems encountered? Please specify.

No difficulties.

**Q-4.** If you marked *Somewhat* or *No* in **Q-2**, whom did you contact about the difficulties/problems? (Check all that apply.)

☐ HACCP Special Team On-Site Coordinator

☐ HACCP Special Team Director

☐ Other HACCP Special Team Member(s): (name(s)) \_\_\_\_\_

☐ Other FSIS Personnel (IIC, Area, Regional, personnel, etc.)

☐ Plant Personnel (Management, QC/Production, etc.)

☐ Other: (title(s)/name(s)) \_\_\_\_\_

**Q-5.** What activities were undertaken to remedy these difficulties/problems (meetings, phone calls, etc.)? Please specify the types and extent of contact with each of the people/groups marked in **Q-4**.

N/A

**Q-6.** To address the difficulties noted in **Q-3**, did the pilot plant make any changes to their processes/procedures to enable them to better fit the Generic HACCP Model?

N/A ☐ Yes ☐ No (Continue with **Q-7**)

**Q-7.** To address the difficulties noted in **Q-3**, were any changes made to the Generic HACCP Model?

N/A ☐ Yes ☐ No (Continue with **Q-8**)

**Q-8.** By what date were all changes incorporated into the generic model? ☐ N/A \_\_\_\_\_

**PART 2: Plant-Specific HACCP Plan**

**Q-9.** Did the pilot plant have an acceptable plant-specific plan in place at the start of the On-Site Visit?

☐ Yes, Completely Acceptable (Skip to Q-11)    
 ☒ Yes, Partially Acceptable (Continue with Q-10)    
 ☐ No Plan/Unacceptable (Continue with Q-10)

**Q-10.** If you marked *Partially Acceptable* or *No/Unacceptable* in Q-9, what did you do to develop or initiate development of a plant-specific HACCP plan (meetings/phone calls, etc.: how many, how long, with whom, etc.)?

Special Team members talked on the telephone with plant personnel, stopped to visit the plant, and worked incrementally to bring the plant-specific plan to an acceptable level.

**Q-11.** Was a plant-specific HACCP plan completed by the end of the On-Site Visit?

☐ Yes (Continue with Q-12)    
 ☒ No

If no, please specify what remains to be done and when do you anticipate such a plan to be completed ready for implementation.

**Q-12.** Were there any other Special Team activities that occurred during the On-site Visit concerning development of a plant-specific plan based on the generic model that we haven't discussed? If yes, please explain.

The plant is a small (50 employees) one. The Quality Control Manager had been there 12 years. It was necessary to start from ground zero getting them up to speed on HACCP. They had just started a TQC program.

"It was important to include the data collector and back-up, the regional coordinator, the Processing Inspection Coordinator (PIC), and other inspectors in at the on-site so that all could move forward together. The Special Team member strongly recommended that the data collector be chosen before any on-site visit is done in the future.



**Questionnaire 1B:** *This questionnaire was designed to assess the time and effort of pilot plants in developing the plant-specific plans prior to and during the On-Site Visit.*

---

- Q-1. Who on your staff worked on the adaptation of the generic HACCP model to a plant-specific HACCP plan? (titles/numbers of people involved, etc.)

Quality Control Manager.

- Q-2. What activities were undertaken to develop the plant-specific plan (e.g., meetings, phone calls, training sessions, etc.)? What was the purpose of each activity? What topics were covered and what was accomplished by each activity? How long were the meetings, etc.? Was there preparation time for the activities? If so, how much time?

See Questionnaire 2B.

- Q-3. Were there any other pilot plant activities concerning the development of a plant-specific plan based on the generic model that occurred prior to or during the On-Site Visit that we haven't discussed? If yes, please explain.

No.

**Questionnaire 2A:** *This questionnaire was designed for the Special Team members at the completion of the plant-specific plan.*

---

- Q-1.** Since the On-Site Visit, what did you do to continue the development of the plant-specific HACCP plan? Please be specific (meetings, phone calls, etc.: how many, how long, with whom).

The original Quality Control Manager was fired and a new manager was hired during the time the plant-specific plan was being developed. The implementation phase of the study began before the final plant-specific plan was approved.

- Q-2.** When was the plant-specific HACCP plan completed? \_\_\_\_\_ January 1993 \_\_\_\_\_

- Q-3.** Were there any other Special Team activities that occurred after the On-Site Visit concerning development of a plant-specific plan based on the generic model that we haven't discussed? If yes, please specify.

No.

**Questionnaire 2B:** *This questionnaire was designed for plant management at the completion of the plant-specific plan.*

---

- Q-1. Since the On-Site Visit, what activities were undertaken to develop the plant-specific model (e.g., meetings, phone calls, training sessions, etc.)? What was the purpose of each activity? What topics were covered and what was accomplished by each activity? How long were the meetings, etc.? Was there preparation time for the activities? If so, how much time?

**The new Quality Control Manager estimated he had spent approximately 30 hours developing the plant-specific plan. He said he had probably spent another 30 hours learning about HACCP since he had not been there for the On-Site visit.**

- Q-2. Since the On-Site Visit, have there been any changes in the numbers or types staff (titles) who worked on the development of a plant-specific HACCP plan based on the generic HACCP model? If yes, please specify.

**A new Quality Control Manager was hired.**

- Q-3. Were there any other pilot plant activities that occurred after the On-Site Visit concerning development of a plant-specific plan based on the generic model that we haven't discussed? If yes, please explain.

**No.**





**Questionnaire 1A:** *This questionnaire was designed to measure Special Team activities during the On-Site Visit.*

**PART 1: Applicability of Generic HACCP Model**

**Q-1.** What activities did you perform to determine the applicability of the Generic HACCP Model to this plant? Please specify activity (e.g., used checklists, toured plant, met with various people, etc.) and the amount of time expended.

Because the pilot plant was small and plant management felt that they couldn't have all the employees they wanted to attend the session out of the plant at one time, the On-site at CS-3 was held at two sessions, April 22-23 and April 27-29, 1992. At the first session, the plant manager, Quality Control Manager, and maintenance manager attended from the plant. The PIC, Performance Based Inspection System (PBIS) management analyst, back-up inspector, the data collector, and area representative attended. The second session included the owner, the sales manager and the laboratory person for the plant. FSIS representatives included the inspector-in-charge, the backup inspector, circuit supervisor, and the backup data collector.

Special Team members walked through the flow diagram. Each plant group had a different perception and their flow diagrams were different. They couldn't believe it, but got together and learned where they differed. The Special Team members thought gaining the perspective of the sales manager was useful in a total TQM program.

**Q-2.** Based on the On-Site Visit, was the generic model applicable to this plant?

☒ **X** Yes, Completely Applicable (Skip to PART 2)      ☐ Yes, Somewhat Applicable (Continue with Q-3)      ☐ No, Not At All Applicable (Continue with Q-3)

**Q-3.** What were the difficulties/problems encountered? Please specify.

The only difference between the generic model and the plant-specific plan was that the plant uses natural casings and adds nitrite at two different levels.

**Q-4.** If you marked *Somewhat* or *No* in Q-2, whom did you contact about the difficulties/problems? (Check all that apply.)

☐ HACCP Special Team On-Site Coordinator

☐ HACCP Special Team Director

☐ Other HACCP Special Team Member(s): (name(s)) \_\_\_\_\_

☐ Other FSIS Personnel (IIC, Area, Regional, personnel, etc.)

☐ Plant Personnel (Management, QC/Production, etc.)

☐ Other: (title(s)/name(s)) \_\_\_\_\_

**Q-5.** What activities were undertaken to remedy these difficulties/problems (meetings, phone calls, etc.)? Please specify the types and extent of contact with each of the people/groups marked in Q-4.

N/A

Q-6. To address the difficulties noted in Q-3, did the pilot plant make any changes to their processes/procedures to enable them to better fit the Generic HACCP Model?

N/A

\_\_\_\_ Yes \_\_\_\_ No (Continue with Q-7)

Q-7. To address the difficulties noted in Q-3, were any changes made to the Generic HACCP Model?

N/A

\_\_\_\_ Yes \_\_\_\_ No (Continue with Q-8)

Q-8. By what date were all changes incorporated into the generic model? \_\_\_\_\_ N/A

**PART 2: Plant-Specific HACCP Plan**

Q-9. Did the pilot plant have an acceptable plant-specific plan in place at the start of the On-Site Visit?

\_\_\_\_ Yes, Completely Acceptable  
(Skip to Q-11)

\_\_\_\_ Yes, Partially Acceptable  
(Continue with Q-10)

**X** No Plan/Unacceptable Plan  
(Continue with Q-10)

Q-10. If you marked *Partially Acceptable* or *No/Unacceptable* in Q-9, what did you do to develop or initiate development of a plant-specific HACCP plan (meetings/phone calls, etc.: how many, how long, with whom, etc.)?

Q-11. Was a plant-specific HACCP plan completed by the end of the On-Site Visit?

\_\_\_\_ Yes (Continue with Q-12)

**X** No

If no, please specify what remains to be done and when you anticipate such a plan to be completed and ready for implementation.

Q-12. Were there any other Special Team activities that occurred during the On-site Visit concerning development of a plant-specific plan based on the generic model that we haven't discussed? If yes, please explain.

The plant group which met the second session misunderstood what the HACCP plan was. When they met with the first group who were the operations people, they were better able to understand the process. The Regional HACCP Coordinator, met with them one or two times afterwards to help them work on their HACCP plan.



**Questionnaire 1B:** *This questionnaire was designed to assess the time and effort of pilot plants in developing the plant-specific plans prior to and during the On-Site Visit.*

---

- Q-1. Who on your staff worked on the adaptation of the generic HACCP model to a plant-specific HACCP plan? (titles/numbers of people involved, etc.)

**Quality Control Manager**

- Q-2. What activities were undertaken to develop the plant-specific plan (e.g., meetings, phone calls, training sessions, etc.)? What was the purpose of each activity? What topics were covered and what was accomplished by each activity? How long were the meetings, etc.? Was there preparation time for the activities? If so, how much time?

**It took 15 hours for the Quality Control Manager to put the plant-specific plan on paper.**

**Five hours were spent in meetings with production people to verify CCPs, controls, etc.**

**The hand-written plant-specific plan was given to the FSIS Regional Office to put into the format of the generic model.**

- Q-3. Were there any other pilot plant activities concerning the development of a plant-specific plan based on the generic model that occurred prior to or during the On-Site Visit that we haven't discussed? If yes, please explain.

**No.**

**Questionnaire 2A:** *This questionnaire was designed for the Special Team members at the completion of the plant-specific plan.*

---

- Q-1.** Since the On-Site Visit, what did you do to continue the development of the plant-specific HACCP plan? Please be specific (meetings, phone calls, etc.: how many, how long, with whom).

**Eighteen hours with plant personnel August 18-19, 1992.**

**Phone calls (including conference calls) approximately four and one half hours total time. All calls were with plant HACCP Coordinator and other plant personnel.**

- Q-2.** When was the plant-specific HACCP plan completed? November 2, 1992

- Q-3.** Were there any other Special Team activities that occurred after the On-Site Visit concerning development of a plant-specific plan based on the generic model that we haven't discussed? If yes, please specify.

**The office of the Regional HACCP Coordinator put their plant-specific plan on the computer and talked with plant officials. Three versions were typed into the computer before the final version was accepted for use. The regional HACCP coordinator estimated that his staff spent eight to ten hours typing the plan and alterations to it.**

**Questionnaire 2B:** *This questionnaire was designed for plant management at the completion of the plant-specific plan.*

---

**Q-1.** Since the On-Site Visit, what activities were undertaken to develop the plant-specific model (e.g., meetings, phone calls, training sessions, etc.)? What was the purpose of each activity? What topics were covered and what was accomplished by each activity? How long were the meetings, etc.? Was there preparation time for the activities? If so, how much time?

**See Questionnaire 1B.**

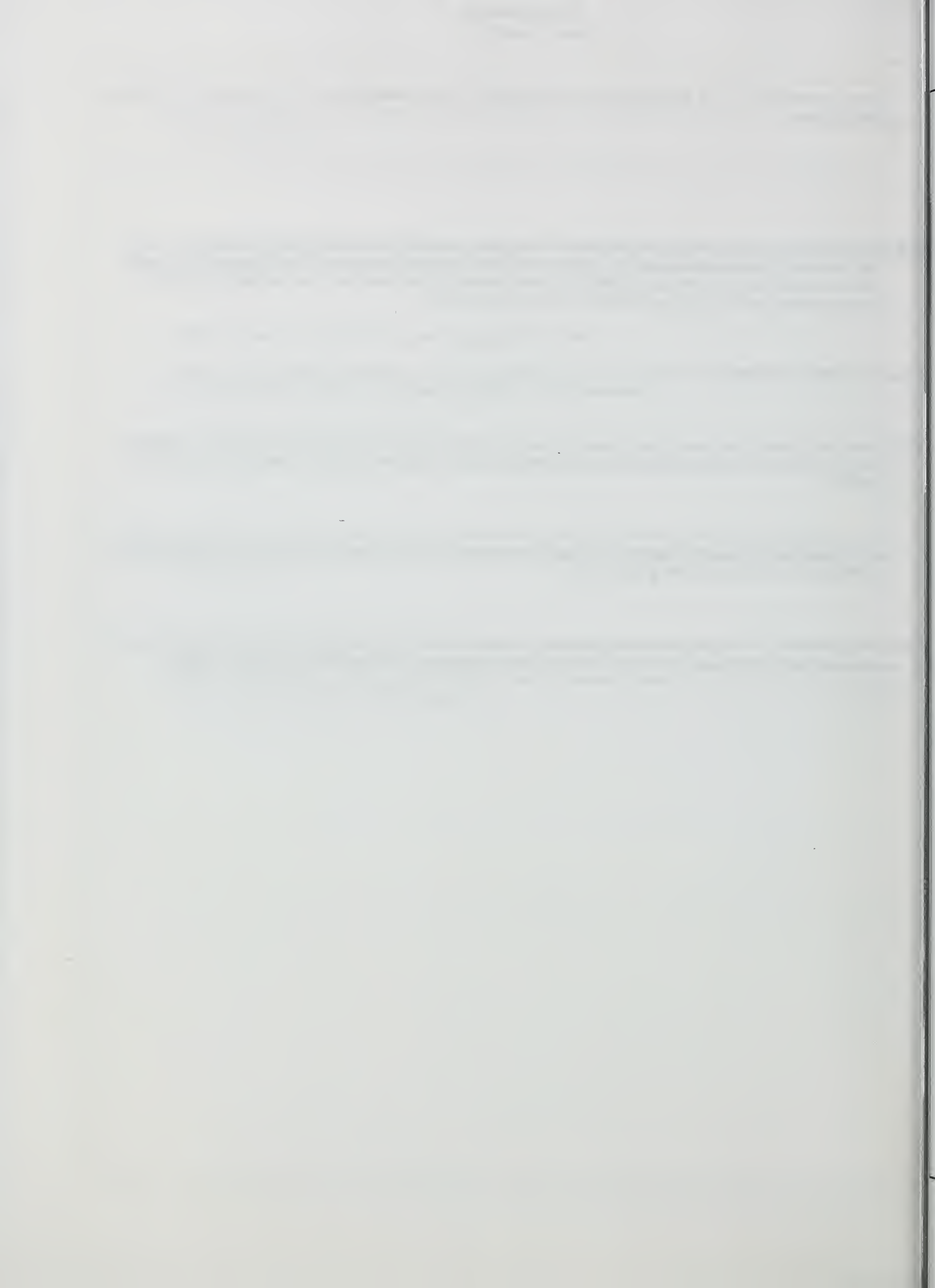
**Q-2.** Since the On-Site Visit, have there been any changes in the numbers or types staff (titles) who worked on the development of a plant-specific HACCP plan based on the generic HACCP model? If yes, please specify.

**After the Quality Control Manager put together the plant-specific plan, she resigned. Further changes in the plan were made by the plant owner.**

**Q-3.** Were there any other pilot plant activities that occurred after the On-Site Visit concerning development of a plant-specific plan based on the generic model that we haven't discussed? If yes, please explain.

**No.**





## **APPENDIX D**

### **RESPONSES TO POULTRY SLAUGHTER QUESTIONNAIRE**

Poultry Slaughter - 1

Poultry Slaughter - 2

Poultry Slaughter - 3





**Questionnaire 1A:** *This questionnaire was designed to measure Special Team activities during the On-Site Visit.*

**PART 1: Applicability of Generic HACCP Model**

**Q-1.** What activities did you perform to determine the applicability of the Generic HACCP Model to this plant? Please specify activity (e.g., used checklists, toured plant, met with various people, etc.) and the amount of time expended.

About 35 persons attended the On-site training at this NELS plant which was held in a trailer conference room at the plant on May 26-28, 1992. Attending were four VMOs, two GS-8s, two data collectors, and some area inspectors, and various FSIS people from Washington ; eight to ten line and quality control plant people, the area HACCP coordinator, the area Quality Control officer, and an area poultry staff officer. The Special Team held an awareness session, toured the plant (in two groups, mostly FSIS staff), and taught the participants how to identify CCPs and develop a HACCP plan.

Special Team members held two HACCP information sharing sessions with the line inspectors, both day and night shifts. About twenty people were there altogether. Inspectors were given one and one half hour of administrative overtime, but stayed about two hours. The Special Team members planned to meet with the line inspectors again at the training session. The inspectors posed good questions.

**Q-2.** Based on the On-Site Visit, was the generic model applicable to this plant?

☒ **X** Yes, Completely Applicable (Skip to PART 2)      ☐ Yes, Somewhat Applicable (Continue with Q-3)      ☐ No, Not At All Applicable (Continue with Q-3)

**Q-3.** What were the difficulties/problems encountered? Please specify.

No difficulties.

**Q-4.** If you marked *Somewhat* or *No* in Q-2, whom did you contact about the difficulties/problems? (Check all that apply.)

☐ HACCP Special Team On-Site Coordinator

☐ HACCP Special Team Director

☐ Other HACCP Special Team Member(s): (name(s)) \_\_\_\_\_

☐ Other FSIS Personnel (IIC, Area, Regional, personnel, etc.)

☐ Plant Personnel (Management, QC/Production, etc.)

☐ Other: (title(s)/name(s)) \_\_\_\_\_

**Q-5.** What activities were undertaken to remedy these difficulties/problems (meetings, phone calls, etc.)? Please specify the types and extent of contact with each of the people/groups marked in Q-4.

There was a good fit between the generic model and the plant slaughter process. Plant management was hesitant at first to add any additional steps that were not in the generic model for fear that these additions would become regulations. However, their plant specific-plan included, at least in the flow diagram, steps like the chlorine rinse they include before final packaging, the post scald rinse, and chlorine at other points on the line.



Q-6. To address the difficulties noted in Q-3, did the pilot plant make any changes to their processes/ procedures to enable them to better fit the Generic HACCP Model?

\_\_\_\_\_ Yes \_\_\_\_\_ No (Continue with Q-7)

N/A

Q-7. To address the difficulties noted in Q-3, were any changes made to the Generic HACCP Model?

N/A

\_\_\_\_\_ Yes \_\_\_\_\_ No (Continue with Q-8)

Q-8. By what date were all changes incorporated into the generic model? \_\_\_\_\_ N/A

**PART 2: Plant-Specific HACCP Plan**

Q-9. Did the pilot plant have an acceptable plant-specific plan in place at the start of the On-Site Visit?

\_\_\_\_\_ Yes, Completely Acceptable (Skip to Q-11) \_\_\_\_\_ Yes, Partially Acceptable (Continue with Q-10) X No Plan/Unacceptable Plan (Continue with Q-10)

Q-10. If you marked *Partially Acceptable* or *No/Unacceptable* in Q-9, what did you do to develop or initiate development of a plant-specific HACCP plan (meetings/phone calls, etc.: how many, how long, with whom, etc.)?

The plant had no plant-specific plan at the start of the On-site. No one from the plant had attended the Poultry Slaughter workshop so plant staff had no idea how to identify CCPs and what the next steps would be to design a plant-specific plan.

Q-11. Was a plant-specific HACCP plan completed by the end of the On-Site Visit?

\_\_\_\_\_ Yes (Continue with Q-12) X No

If no, please specify what remains to be done and when you anticipate such a plan to be completed and ready for implementation.

Special Team members visited at the plant on July 14-15, 1992, to help them complete their plant specific plan.

All four lines were a part of the HACCP pilot. Although two lines could be isolated as going into one chiller, all four lines dump into a common area so two lines couldn't be isolated for the pilot. The Special Team also extended the plant-specific plan through to the cooler because of the layout of the plant.

Q-12. Were there any other Special Team activities that occurred during the On-site Visit concerning development of a plant-specific plan based on the generic model that we haven't discussed? If yes, please explain.

The plant had a good person as HACCP coordinator for the plant. The plant management was receptive and interested. Although no one from the plant attended the HACCP Poultry Slaughter workshop, a retired company employee who did attend encouraged the plant to participate as a pilot and has been acting as a consultant. Plant management felt that if HACCP goes nationwide, they would like to be in the forefront.

Initially there had been some problem with the data collectors and sample collection at the plant. A staff person from Washington, D.C., went to the plant to straighten things out.

**Questionnaire 1B:** *This questionnaire was designed to assess the time and effort of pilot plants in developing plant-specific plans prior to and during the On-Site Visit.*

**Q-1.** Who on your staff worked on the adaptation of the generic HACCP model to a plant-specific HACCP plan? (titles/numbers of people involved, etc.)

The HACCP Coordinator adopted the generic model to the plant-specific plan with input from the 2nd Processing Plant Manager, the 1st Processing Plant Manager, the Quality Assurance Manager, the Wastewater Manager, the 2nd Processing Superintendent, and other production foremen throughout the plant.

**Q-2.** What activities were undertaken to develop the plant-specific plan (e.g., meetings, phone calls, training sessions, etc.)? What was the purpose of each activity? What topics were covered and what was accomplished by each activity? How long were the meetings, etc.? Was there preparation time for the activities? If so, how much time?

Conference call with Carlson and Clark to revise plant specific HACCP plan July 7, 1992.	45 min.
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June 23, 1992, Meeting with plant management prior to on-site visit to prepare for on-site visit	2 hrs.
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Developing plant specific plant	46 hrs.
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Working with Data Collectors - assisting first three days	2 hrs.
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Interview with Dr. Henderson, Dr. Arrington, and John Snyder	1 hr.
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Second draft of HACCP plan with Carson and Clark review with plant management	20 hrs.
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Meeting with Department foreman to update on HACCP	1 hr.
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**Q-3.** Were there any other pilot plant activities concerning the development of a plant-specific plan based on the generic model that occurred prior to or during the On-Site Visit that we haven't discussed? If yes, please explain.

No.



**Questionnaire 2A:** *This questionnaire was designed for the Special Team members at the completion of the plant-specific plan.*

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**Q-1.** Since the On-Site Visit, what did you do to continue the development of the plant-specific HACCP plan? Please be specific (meetings, phone calls, etc.: how many, how long, with whom).

Sixteen hours with plant HACCP Coordinator July 14-15, 1992, at the plant.

Phone calls (including conference calls) approximately six hours total time. All calls were with plant HACCP Coordinator and other plant personnel (e.g. plant manager.)

**Q-2.** When was the plant-specific HACCP plan completed? July 30, 1992

**Q-3.** Were there any other Special Team activities that occurred after the On-Site Visit concerning development of a plant-specific plan based on the generic model that we haven't discussed? If yes, please specify.

No.

**Questionnaire 2B:** *This questionnaire was designed for plant management at the completion of the plant-specific plan.*

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- Q-1.** Since the On-Site Visit, what activities were undertaken to develop the plant-specific model (e.g., meetings, phone calls, training sessions, etc.)? What was the purpose of each activity? What topics were covered and what was accomplished by each activity? How long were the meetings, etc.? Was there preparation time for the activities? If so, how much time?

See Questionnaire 1B Question Q-2.

- Q-2.** Since the On-Site Visit, have there been any changes in the numbers or types staff (titles) who worked on the development of a plant-specific HACCP plan based on the generic HACCP model? If yes, please specify.

No.

- Q-3.** Were there any other pilot plant activities that occurred after the On-Site Visit concerning development of a plant-specific plan based on the generic model that we haven't discussed? If yes, please explain.

No.





**Questionnaire 1A:** *This questionnaire was designed to measure Special Team activities during the On-Site Visit.*

**PART 1: Applicability of Generic HACCP Model**

**Q-1.** What activities did you perform to determine the applicability of the Generic HACCP Model to this plant? Please specify activity (e.g., used checklists, toured plant, met with various people, etc.) and the amount of time expended.

The On-Site visit at this plant was held May 27-28, 1992. The Special Team used the HACCP checklists, toured the plant and gave HACCP familiarization sessions. There were about 25 people at the On-Site, half FSIS staff and half plant personnel. The plant had a draft HACCP plan prepared prior to the On-Site. They had had help developing it from the quality control staff of a poultry slaughter plant owned by their company which is a HACCP pilot plant.

The Special Team held information sessions about HACCP for FSIS line inspectors: one session for each shift, 15 attended one session and eight or nine the other. Inspectors were paid administrative overtime for the sessions. The sessions were so successful that the team planned to hold special sessions for line inspectors again during training.

**Q-2.** Based on the On-Site Visit, was the generic model applicable to this plant?

☒ **X** Yes, Completely Applicable (Skip to PART 2)      ☐ Yes, Somewhat Applicable (Continue with Q-3)      ☐ No, Not At All Applicable (Continue with Q-3)

**Q-3.** What were the difficulties/problems encountered? Please specify.

The plant-specific plan did not contain all the steps that the generic model contains. It did not include packaging and storage. This was not a problem as this particular plant did not have these steps as part of its operations.

**Q-4.** If you marked *Somewhat* or *No* in Q-2, whom did you contact about the difficulties/problems? (Check all that apply.)

☐ HACCP Special Team On-Site Coordinator

☐ HACCP Special Team Director

☐ Other HACCP Special Team Member(s): (name(s)) \_\_\_\_\_

☐ Other FSIS Personnel (IIC, Area, Regional, personnel, etc.)

☐ Plant Personnel (Management, QC/Production, etc.)

☐ Other: (title(s)/name(s)) \_\_\_\_\_

**Q-5.** What activities were undertaken to remedy these difficulties/problems (meetings, phone calls, etc.)? Please specify the types and extent of contact with each of the people/groups marked in Q-4.

N/A

Q-6. To address the difficulties noted in Q-3, did the pilot plant make any changes to their processes/ procedures to enable them to better fit the Generic HACCP Model?

\_\_\_\_\_ Yes \_\_\_\_\_ No (Continue with Q-7)

N/A

Q-7. To address the difficulties noted in Q-3, were any changes made to the Generic HACCP Model?

N/A

\_\_\_\_\_ Yes \_\_\_\_\_ No (Continue with Q-8)

Q-8. By what date were all changes incorporated into the generic model? \_\_\_\_\_ N/A \_\_\_\_\_

**PART 2: Plant-Specific HACCP Plan**

Q-9. Did the pilot plant have an acceptable plant-specific plan in place at the start of the On-Site Visit?

\_\_\_\_\_ Yes, Completely Acceptable (Skip to Q-11) \_\_\_\_\_ Yes, Partially Acceptable (Continue with Q-10) X No Plan/Unacceptable Plan (Continue with Q-10)

Q-10. If you marked *Partially Acceptable* or *No/Unacceptable* in Q-9, what did you do to develop or initiate development of a plant-specific HACCP plan (meetings/phone calls, etc.: how many, how long, with whom, etc.)?

The plant had a draft plan ready for review. The Quality Control Manager at another pilot plant worked with this plant's quality control staff. All the plant's operations were under the HACCP plan as the plant has three lines, but only two chill tanks.

Q-11. Was a plant-specific HACCP plan completed by the end of the On-Site Visit?

\_\_\_\_\_ Yes (Continue with Q-12) \_\_\_\_\_X No

If no, please specify what remains to be done and when you anticipate such a plan to be completed and ready for implementation.

Q-12. Were there any other Special Team activities that occurred during the On-site Visit concerning development of a plant-specific plan based on the generic model that we haven't discussed? If yes, please explain.

The plant has a good quality control group and is extremely cooperative. During baseline data collection, chlorination, already in use in this plant, was discontinued. It was added during implementation as part of their HACCP plan.



**Questionnaire 1B:** *This questionnaire was designed to assess the time and effort of pilot plants in developing plant-specific plans prior to and during the On-Site Visit.*

- )-1. Who on your staff worked on the adaptation of the generic HACCP model to a plant-specific HACCP plan? (titles/numbers of people involved, etc.)

**Quality Control Manager**

**Plant Manager**

**Quality Control Manager (of other company owned plant)**

- )-2. What activities were undertaken to develop the plant-specific plan (e.g., meetings, phone calls, training sessions, etc.)? What was the purpose of each activity? What topics were covered and what was accomplished by each activity? How long were the meetings, etc.? Was there preparation time for the activities? If so, how much time?

**Three meetings were held to develop and revise plant specific plan 12 hrs.**

**One meeting was held to assign duties of plant specific plan 2 hrs.**

**One meeting was held to explain/get comments from supervisors 2 hrs.**

**Phone calls to review and consulting for plant specific plan 3 hrs.**

- )-3. Were there any other pilot plant activities concerning the development of a plant-specific plan based on the generic model that occurred prior to or during the On-Site Visit that we haven't discussed? If yes, please explain.

**No.**



**Questionnaire 2A:** *This questionnaire was designed for the Special Team members at the completion of the plant-specific plan.*

---

**Q-1.** Since the On-Site Visit, what did you do to continue the development of the plant-specific HACCP plan? Please be specific (meetings, phone calls, etc.: how many, how long, with whom).

Plant had draft plan ready for review at the On-site visit.

**Q-2.** When was the plant-specific HACCP plan completed? May 28, 1992

**Q-3.** Were there any other Special Team activities that occurred after the On-Site Visit concerning development of a plant-specific plan based on the generic model that we haven't discussed? If yes, please specify.

No.

**Questionnaire 2B:** *This questionnaire was designed for plant management at the completion of the plant-specific plan.*

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- Q-1.** Since the On-Site Visit, what activities were undertaken to develop the plant-specific model (e.g., meetings, phone calls, training sessions, etc.)? What was the purpose of each activity? What topics were covered and what was accomplished by each activity? How long were the meetings, etc.? Was there preparation time for the activities? If so, how much time?

According to the plant Quality Control Manager, the plant specific plan was developed at the time of the on-site visit. Therefore, this questionnaire is N/A.

- Q-2.** Since the On-Site Visit, have there been any changes in the numbers or types staff (titles) who worked on the development of a plant-specific HACCP plan based on the generic HACCP model? If yes, please specify.

No.

- Q-3.** Were there any other pilot plant activities that occurred after the On-Site Visit concerning development of a plant-specific plan based on the generic model that we haven't discussed? If yes, please explain.

No.

PAR

Q-1

Q-2

Q-3

Q-4

Q-5



**Questionnaire 1A:** *This questionnaire was designed to measure Special Team activities during the On-Site Visit.*

**PART 1: Applicability of Generic HACCP Model**

**Q-1.** What activities did you perform to determine the applicability of the Generic HACCP Model to this plant? Please specify activity (e.g., used checklists, toured plant, met with various people, etc.) and the amount of time expended.

The On-site was held May 26-28, 1992. A group of 24 plant and FSIS personnel met first at the hotel for on-site awareness, then the group went to the plant for a walk through to match the flow diagram developed at the On-Site to the plant process. During the plant walk through, the Special Team noted that the plant-specific plan discussed at the hotel was different from the actual plant operations; steps were out of order.

The Special Team met with the day shift inspectors, the area union representative and some plant people after the first shift for a HACCP question and answer session. Initially, the group was unwilling to ask questions, but after the HACCP slide presentation, they asked questions including some like, "Why are you spending money doing a HACCP pilot program when the agency is short of inspectors, and how much is this costing? At 8:30 pm after the second shift, the Special Team met with three nightshift inspectors and two plant people for a similar session.

**Q-2.** Based on the On-Site Visit, was the generic model applicable to this plant?

☒ **X** Yes, Completely Applicable (Skip to PART 2)      ☐ Yes, Somewhat Applicable (Continue with Q-3)      ☐ No, Not At All Applicable (Continue with Q-3)

**Q-3.** What were the difficulties/problems encountered? Please specify.

No difficulties.

**Q-4.** If you marked *Somewhat* or *No* in Q-2, whom did you contact about the difficulties/problems? (Check all that apply.)

☐ HACCP Special Team On-Site Coordinator

☐ HACCP Special Team Director

☐ Other HACCP Special Team Member(s): (name(s)) \_\_\_\_\_

☐ Other FSIS Personnel (IIC, Area, Regional, personnel, etc.)

☐ Plant Personnel (Management, QC/Production, etc.)

☐ Other: (title(s)/name(s)) \_\_\_\_\_

**Q-5.** What activities were undertaken to remedy these difficulties/problems (meetings, phone calls, etc.)? Please specify the types and extent of contact with each of the people/groups marked in Q-4.

N/A

Q-6. To address the difficulties noted in Q-3, did the pilot plant make any changes to their processes/ procedures to enable them to better fit the Generic HACCP Model?

\_\_\_\_ Yes \_\_\_\_ No (Continue with Q-7)

N/A

Q-7. To address the difficulties noted in Q-3, were any changes made to the Generic HACCP Model?

N/A

\_\_\_\_ Yes \_\_\_\_ No (Continue with Q-8)

Q-8. By what date were all changes incorporated into the generic model? \_\_\_\_\_ N/A

**PART 2: Plant-Specific HACCP Plan**

Q-9. Did the pilot plant have an acceptable plant-specific plan in place at the start of the On-Site Visit?

\_\_\_\_ Yes, Completely Acceptable (Skip to Q-11) \_\_\_\_ Yes, Partially Acceptable (Continue with Q-10) \_\_\_\_ NO No Plan/Unacceptable (Continue with Q-10)

Q-10. If you marked *Partially Acceptable* or *No/Unacceptable* in Q-9, what did you do to develop or initiate development of a plant-specific HACCP plan (meetings/phone calls, etc.: how many, how long, with whom, etc.)?

Q-11. Was a plant-specific HACCP plan completed by the end of the On-Site Visit?

\_\_\_\_ Yes (Continue with Q-12) \_\_\_\_X No

If no, please specify what remains to be done and when you anticipate such a plan to be completed and ready for implementation.

Q-12. Were there any other Special Team activities that occurred during the On-site Visit concerning development of a plant-specific plan based on the generic model that we haven't discussed? If yes, please explain.

During the session on developing CCPs, the Special Team broke the participants into two groups, each a mixture of FSIS and plant personnel with the spokesperson for each group being a plant person. One group had the responsibility of developing all parts of a CCP and creating an overhead. The Special Team could hear by their discussions that each group understood the difference between making up a generic CCP and developing a specific one for their plant.

There was a problem with the plant. The company was upset about collecting birds for samples. Apparently, the corporate quality control manager who was on the HACCP steering committee volunteered his company to do a pilot and selected this plant when there were no volunteers. HACCP material had gone to corporate headquarters and apparently, neither he nor the plant had read all that was involved in participating in a pilot. Finally, the company agreed to wait and reconsider its decision to pull out. Company management called back a week later and agreed to follow all conditions. The area supervisor handled the situation well and play down their anxieties. Plant management was anxious because of the Atlanta Journal publicity. There was a split within the company between those who wanted to participate and those who didn't.



**Questionnaire 1B:** *This questionnaire was designed to assess the time and effort of pilot plants in developing plant-specific plans prior to and during the On-Site Visit.*

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- Q-1.** Who on your staff worked on the adaptation of the generic HACCP model to a plant-specific HACCP plan? (titles/numbers of people involved, etc.)

**HACCP Quality Control Manager.**

- Q-2.** What activities were undertaken to develop the plant-specific plan (e.g., meetings, phone calls, training sessions, etc.)? What was the purpose of each activity? What topics were covered and what was accomplished by each activity? How long were the meetings, etc.? Was there preparation time for the activities? If so, how much time?

**The Quality Control Manager said he had spent 50 hours writing the plant-specific plan. This time estimate included the time he spent consulting with technical experts.**

- Q-3.** Were there any other pilot plant activities concerning the development of a plant-specific plan based on the generic model that occurred prior to or during the On-Site Visit that we haven't discussed? If yes, please explain.

**No.**



**Questionnaire 2A:** *This questionnaire was designed for the Special Team members at the completion of the plant-specific plan*

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**Q-1.** Since the On-Site Visit, what did you do to continue the development of the plant-specific HACCP plan? Please be specific (meetings, phone calls, etc.: how many, how long, with whom). Q-1

One hour with plant personnel May 26, 1992: twelve hours with plant August 3-4, 1992.

Phone calls approximately five hours total time. Calls were with plant HACCP Coordinator and other plant personnel. Q-2

**Q-2.** When was the plant-specific HACCP plan completed? October 18, 1992

**Q-3.** Were there any other Special Team activities that occurred after the On-Site Visit concerning development of a plant-specific plan based on the generic model that we haven't discussed? If yes, please specify.

The plant-specific plan completed on October 18, 1992, will need to be revised before the plant can proceed to Phase III of the HACCP pilot test. Target date for the revision is February 1993. Q-3

**Questionnaire 2B:** *This questionnaire was designed for plant management at the completion of the plant-specific plan.*

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**Q-1.** Since the On-Site Visit, what activities were undertaken to develop the plant-specific model (e.g., meetings, phone calls, training sessions, etc.)? What was the purpose of each activity? What topics were covered and what was accomplished by each activity? How long were the meetings, etc.? Was there preparation time for the activities? If so, how much time?

**See Questionnaire 1B.**

**Q-2.** Since the On-Site Visit, have there been any changes in the numbers or types staff (titles) who worked on the development of a plant-specific HACCP plan based on the generic HACCP model? If yes, please specify.

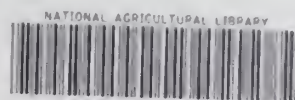
**No.**

**Q-3.** Were there any other pilot plant activities that occurred after the On-Site Visit concerning development of a plant-specific plan based on the generic model that we haven't discussed? If yes, please explain.

**No.**







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